Costs and timelines for moving to a single migrations process for transferable broadband and voice products

Final report for Ofcom

January 2008
## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive Summary</td>
<td>4</td>
</tr>
<tr>
<td>1 Introduction</td>
<td>12</td>
</tr>
<tr>
<td>2 Current market outcomes and customer experiences</td>
<td>17</td>
</tr>
<tr>
<td>3 Lessons from international and sectoral experience</td>
<td>20</td>
</tr>
<tr>
<td>4 Potential migration options</td>
<td>27</td>
</tr>
<tr>
<td>5 Costs, benefits and other considerations</td>
<td>43</td>
</tr>
<tr>
<td>6 A potential way forward</td>
<td>61</td>
</tr>
<tr>
<td>A1 Glossary</td>
<td>69</td>
</tr>
<tr>
<td>A2 Summary of phase 1</td>
<td>71</td>
</tr>
<tr>
<td>A3 Industry briefing document</td>
<td>75</td>
</tr>
<tr>
<td>A4 Industry Questionnaire</td>
<td>79</td>
</tr>
</tbody>
</table>
This report has been prepared on the basis of our contract dated 25 March 2007 and on the basis of the scope and limitations as set out below.

The report has been prepared solely for the purposes of Ofcom in assessing the costs and benefits involved in moving to a single process for migrating transferable voice and broadband services. The distribution of this report is subject to the restrictions on use specified in the Engagement Letter and the Thought Partner terms and conditions that have been signed by Ofcom and Deloitte & Touche LLP (Deloitte). No other party is entitled to rely on this document for any purpose whatsoever and we accept no responsibility or liability to any other party in respect of the contents of the Report. Deloitte accepts no responsibility for any reliance that may be placed on this document should it be used by any party other than the Ofcom or for any purpose that is not in accordance with the terms of the Engagement Letter.

The scope of our work has been limited by the time, information and explanations made available to us. We have relied upon the documents and data provided by Ofcom and on third party data sources which have been clearly referenced in the appropriate sections of this report. We have no responsibility for the accuracy or completeness of this information and have not reviewed its overall reasonableness.

Our work and findings are part of the overall process Ofcom is conducting to identify appropriate migrations processes for the UK communications market. We draw Ofcom’s attention to the fact that the scope of our work is in an early stage of that process and other factors may come to light that lead to different recommendations on the appropriateness of particular migration approaches.
Executive Summary

Background, terms of reference and approach

Ofcom has a duty to further the interests of citizens and consumers through a regulatory regime which, where appropriate, encourages competition. Effective competition delivers choice and lower prices to consumers as well as opportunities for new services and Communications Providers (CPs). However, consumers may need protection from inappropriate and unacceptable behaviour by CPs that may undermine confidence in the market as well as causing individual harm. Whilst there are limited statistics in this area and industry has some concerns over the need for action, Ofcom has particular concerns in relation to:

- Mis-selling, which covers a range of sales and marketing activities, particularly in the voice industry;
- Slamming, where customers are simply switched from one company to another without their knowledge and consent;
- Failure to issue migration authorisation codes (MACs), which appear to be the result of the dependency upon the losing provider (LP) for the initiation of the process; and
- The poor overall “end-to-end” customer experience of migration; demonstrated by issues such as tags on the line and failed broadband migration cases raised by the industry.

Ofcom is now undertaking a review of the case for a single process for customer transfers for all transferable voice and broadband services. Ofcom’s February 2006 consultation document “Migrations, Switching, and Mis-selling” established a view that there were valid reasons for contemplating a move away from product-specific migration processes towards more uniform processes, notably that:

- Customer experience depends on the product and service being migrated;
- Increasing volume and complexity of migrations will increase the demand being placed on migration processes initially developed for more simple migration production processes; and
- Difficulty and inefficiency of managing multiple and separate migration processes for existing providers and new entrants.

Following the publication of the migrations consultation paper, Ofcom encouraged the industry to set up a Migrations Industry Working Group (IWG) to make recommendations to Ofcom on preferred options for single migrations processes, reporting on 21 September 2006.

The IWG report based its decisions around six principles which were related to different customer protection mechanisms and concluded that a single migration process was desirable, and recommended three options for further consultation.

However, the scope of the IWG was limited to examining switching between providers; residential consumers and small enterprises (ten employees or less); and line rental, call and broadband products only. Moreover, the IWG work focused solely on the best customer migration facilitator, and did not discuss implementation or cost issues. As a result Ofcom commissioned Deloitte to develop ideas and explore issues which go beyond the matters raised and discussed as part of the IWG process. In particular, unlike the IWG, we have explicitly been requested to consider issues connected with the implementation and cost of various migration proposals. We have also considered a richer array of options than those studied by the IWG as a consequence of our investigations into international and sectoral migration practices.
Ofcom has commissioned Deloitte to consider the relative costs and benefits of alternative ways in which Ofcom may implement a single migration process for transferable voice and broadband products.

Following an initial phase of work (including analysis of approaches to migration and discussions with various stakeholders), a long list of options for the single migration process was narrowed down to four migrations options for further in-depth investigation. These options were selected on the basis of providing a coverage of the four types of option: Gaining Provider (GP) led, LP led, customer led and third party led:

- Inter CP Communications process (ICP): a variant of the existing MAC process which is Gaining Provider (GP) led and includes a simple third party intermediary to act as the communication facilitator between the GP and the LP;
- A Multi MAC process which continues to be LP led and where the customer is responsible for obtaining an authorisation code for each of the following products they intend to switch; broadband access, fixed line access and mobile access. In scenarios where the customer wanted to switch to or from a bundle they would need to provide the GP with all 3 codes (for a bundle with three products);
- A single code process: where the customer would be assigned a single code which would be associated with their premises and where all their communications products and services would be associated with this code. The customer would use this code in a similar way in which the MAC and Porting Authorisation Code (PAC) is used in order to authorise and facilitate their migration request; and
- A 3rd party data hub process: where in the absence of a single data repository of all network assets then a third party centralised data hub would facilitate the data transfers required for a migration between the LP, GP and access provider via numerous dedicated interfaces.

The potential benefits of a compensation framework (based on a GP led process) and transfer notifications being issued to the customer were also considered. However this approach was not evaluated as an option in its own right but rather as an added incentive to comply that could be implemented to encourage compliance with any single process.

In considering the relative merits of these options Deloitte have sought to consider:

- Customer experience: encompassing considerations such as timeliness, simplicity, and customer touch points;
- Validation and verification: to ensure that the customer is protected against slamming and mis-selling and is informed as to the consequences of the migration;
- Process efficiency: to ensure there is no discrimination against certain providers and no unnecessary barriers to entry;
- The implementation and ongoing operational and maintenance costs of each option, considered on an incremental cost basis;
- An evaluation of costs against the customer experience assessed as an incremental improvement relative to current outcomes; and
- Transitional issues.

In addition to these factors, Deloitte have had regard to the extent to which each of these migrations processes were:

- Applicable to current technological and business developments in the sector. For example, any single migration process would need the capability to support Next Generation Access
and the continued roll out of full local loop unbundling (LLU) to deliver its full benefit to final consumers; and

- Flexible and proportionate: Clearly it is important to consider whether in realising the direct benefits of a single migration process other negative consequences were to develop, i.e. stifle any innovation, competition or developments of the sector.

Deloitte has assessed the above issues based on:

- Consultation, including industry discussions and workshops, and discussions with Ofcom and other regulators;
- Further analysis of the success of key migration models elsewhere; and
- Our understanding of the industry and the potential market impact of the rival single migration process options.

**Results of our cost benefit analysis**

A summary of the estimated costs involved in the four options is detailed below.

<table>
<thead>
<tr>
<th>Migration option</th>
<th>Implementation Cost (£)</th>
<th>Ongoing annual cost (£)</th>
<th>Percentage incremental to current developments</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICP Process</td>
<td>150-200m</td>
<td>2-3m</td>
<td>70%</td>
</tr>
<tr>
<td>Multi MAC option</td>
<td>150-200m</td>
<td>2-3m</td>
<td>70%</td>
</tr>
<tr>
<td>Single code</td>
<td>400-500m</td>
<td>1-2m</td>
<td>100%</td>
</tr>
<tr>
<td>3rd party data hub</td>
<td>500-600m</td>
<td>2-3m</td>
<td>100%</td>
</tr>
<tr>
<td>Compensation framework</td>
<td>17-18m</td>
<td>2m</td>
<td>60%</td>
</tr>
</tbody>
</table>

Note. The costs of the compensation framework are estimated based on 300,000 complaints received annually; actual costs would depend on a number of factors including, but not limited to, transaction volumes.

These estimated costs are based on Deloitte’s experience within the industry and across major IT implementation programmes. These cost estimates have been constructed on a bottom-up basis and are subject to a number of important assumptions detailed elsewhere in our report.

It is inherently difficult to develop accurate estimates of the likely costs of moving to a streamlined industry migration process due to the number of variable factors involved. For example, the service providers impacted by such a move may each have different operating models, different levels of process automation and systems support, different data and application architectures, different systems development roadmaps, and different levels of capability within their business to implement the new requirements. It is not feasible in a study of this nature to accurately assess the impact of all these variables on the likely cost impact on any specific service provider. Furthermore completing accurate costs estimates would necessitate access to detailed information relating to the operating model and cost base of each impacted service provider beyond that which is available in the public domain.

Notwithstanding these limitations, the cost estimates contained within the report have been developed with sufficient robustness to provide an order of magnitude to enable baseline comparison of the various options. Given the assumptions and limitations outlined above the cost estimates in this report should be regarded as indicative only. Additional, more detailed analysis will be required to validate the assumptions made and to provide a more accurate estimate of the costs involved in implementing the final preferred option for specific service providers. In order to facilitate this, a detailed design and specification of the to-be process and supporting data flows is required together
with a detailed functional specification for the supporting systems. Development of these detailed process and systems specifications and designs is outside of the scope of this report.

In terms of the benefits provided by the various options a more qualitative analysis was required due to the lack of available data.

Given Ofcom’s stated concerns with the current situation, namely that current processes are very hard to monitor and manage and incentives to comply are low, Deloitte has concluded that there is a requirement for some form of centralised process to provide transparency in proactively monitoring the customer experience and manage compliance. Extending the current MAC process across industry has few additional benefits since compliance is difficult to monitor and manage, resulting in low incentives to comply. Likewise, adding a penalty per slam or compensation payment process to the status quo would be difficult to manage and administer and inevitably would lead to disputes, potentially limiting the migration process further. A centralised process with clearly defined performance metrics, roles and responsibilities would appear to be the most effective way of addressing the current process issues. The functionality and scope of such a centralised process will therefore be one of the main considerations of this report as we assess the varying costs and benefits of the potential options.

Whilst the Single Code and 3rd party data hub options provide marginally greater benefits in terms of protection from mis-selling and slamming, the costs and risk of potential implementation issues make these options prohibitive. Whilst it is for Ofcom to determine the balance between costs and benefits, Ofcom have asked for Deloitte’s view on this trade off. In summary we have concluded that the additional benefits are more than outweighed by the very high relative costs of these two options, based on the following rationale:

- **Single code**: the number of products and services that might be associated with the customers code and the level of interaction required to maintain the accuracy of this; and
- **3rd party data hub**: the high level of investment required to support the scale and complexity of the solution not only in terms of implementation but also maintenance.

The two remaining options share an important advantage in providing a high level of customer protection, since there are clear requirements for an agreed set of customer data to be validated at the beginning of the process, reducing the risk of an unauthorised transfer.

However, we have concluded that the LP led Multi MAC option provides a lower level of consumer benefit than the ICP as a result of the multiple customer touch points that would be required in the scenario of a migration to a bundle. In addition, since this approach is LP led the possibility remains for the LP to obstruct the migration process.

It is proposed that the GP led ICP solution would provide the significant customer benefit associated with a GP led solution as well as being able to address the potential risks it poses in terms of mis-selling. A GP led solution would reduce the possibility of the LP being able to obstruct the migration process or put pressure on the customer to change their mind, and provide a single point of contact and ownership for the customer in case of any migration related issues. The additional benefits offered by the ICP process relate to the opportunity it provides for process transparency in being able to proactively monitor and track the migration process.

Since the primary function of the ICP would be to facilitate the automated exchange and validation of customer data between the GP and the LP it offers an additional level of protection against mis-selling. Without the ICP process, the possibility remains for mis-selling by the GP since no validation of customer data would need to take place. If the process was not automated in this way then there would be a requirement for one to many contact relationships between the CPs, potentially allowing the LP to obstruct the process and ultimately becoming unmanageable. The ICP has only one customer touch point to initiate the migration request offering significant customer convenience, and
it is proposed that key performance indicators associated with the process would monitor compliance.

The compensation framework, whilst not a migration process in its own right, also has significant customer benefit via incentivising CPs to comply with the end to end process, providing the customer with a single point of contact and ownership in the event of migration related issues. General Condition 22 fines could support this incentive mechanism further if required.

There is international support for the GP led and compensation frameworks. In particular, the Australian and Danish communications sectors use GP led processes, based on the GP using best endeavours to identify the customer. Compensation is a feature of the Irish and US telecommunication regimes and UK electricity market. Although the Irish and US regulators were unable to provide any statistics as to the effect this feature has had on the number of switching related complaints, Ofgem's assessments of the Erroneous Transfer Customers Charter found it to be effective in reducing the number of complaints and fulfilling customer expectations. A centralised process is also successfully used in the electricity and gas sectors. However it is important to note that this is a historical legacy which cannot be readily replicated in the communications market for which numerous switching mechanisms (corresponding to numerous products) exist.

A number of features of these processes appear suitable for transplant into the UK communications market:

- A centralised process which focuses on customer convenience in the context of bundled service offerings and the related number of customer touch points which could be an artificial barrier to switching;
- A GP led process to provide the customer with a single point of contact and ownership for their migration to ensure that the customer is not deterred by the perception of a complex process and fears related to a poor customer experience; and
- Compensation as an incentive to CPs to invest in service to make the end to end migrations experience a positive one. This is likely to be an increasingly important issue with the growth of complex bundle offerings.

Deloitte have concluded following discussions with Ofcom that a GP led ICP process, supported by the compensation framework, best addresses any potential risks of non compliance or mis-selling that might exist within the ICP process, as well as incentivising CPs to invest in the end to end customer experience. As such, Deloitte conclude that the introduction of both approaches, possibly on an incremental basis, presents the strongest solution for Ofcom.

How would this approach work?

The following details the basis of the proposed ICP process and the supporting compensation framework. Clearly these options have been developed within the limitations of this project and further detailed feasibility work would be required before proceeding with either / both options. Notably, extensive consultation with the industry and other stakeholders would be required.

ICP process

This option has seven key steps leading to migration:

- Customer contacts GP and requests migration. Customer may contact GP via a number of sales channels: phone call, internet sign up, retail outlet etc.
• GP collects predefined information and requests MAC via the ICP communications system:
  o GP has an obligation to capture a pre agreed set of industry information to verify the customer and the products and services they wish to migrate. There is an industry agreed minimum requirement for customer verification;
  o There would also be a requirement for the GP to make the customer aware that their decision to switch could impact their existing services. It is then the customer’s decision as to whether they choose to contact their LP to explore these; and
  o The requirement would remain for the GP to send the customer confirmation of their order.
• Migration request received by ICP. Data validated and request sent to LP:
  o Predefined migration information would be entered into a GUI. The information is then exchanged with the LP via a centralised clearing house.
• Request received by LP. The LP would have a regulatory obligation to validate the customer information and then issue the MAC to the GP via the ICP:
  o Once the request is received by the LP then a MAC should be issued. The code will be exchanged with the LP via the ICP within the agreed timeframe. It is envisaged that this would be a near instant process based on pre agreed validation criteria so the possibility for LPs to arbitrarily reject migration requests on a case by case basis would be minimised. If this practice did occur then the ICP would highlight this in its key performance indicators and provide the supporting examples required to be able to investigate and address this; and
  o If the pre agreed industry information failed the validation criteria then a rejection notification would be sent back to the GP via the ICP highlighting the data discrepancy so that this could be verified with the customer and the request resubmitted. This serves an important principle in keeping the customer well informed throughout the process and protected from mis-selling.
• Once the MAC has been received via the ICP the GP places migration order as per the business as usual migration order process. It is anticipated that the LP would still send the customer some form of exit communication containing pre agreed information to confirm that a request had been received to transfer their service.
• Migration complete.

There are several different approaches which could be used to facilitate ICP communication. Deloitte has assumed a fully automated exchange through a single central clearing house. This method uses a pre-determined format for the data and can be completed in minutes. This automated exchange would be facilitated by a dedicated gateway. The system would then validate the data and track the exchange of migration information end to end by time and date stamping it. Once the information required to validate the migration has been exchanged then the process would continue as per the business as usual ordering processes. The advantages of these enhancements to the process are:
• The onus on the customer to facilitate the process is removed;
• The customer has a single point of contact and ownership in the GP in the event of any migration related issues;
• There is still a significant level of validation and verification that takes place between the GP and the LP to protect the customer against unauthorised migrations;
• There is a single gateway/interface for CP to CP communications as opposed to the one to many interfaces that would need to be in place to facilitate communication between all CPs which would ultimately prove unmanageable;

• The exchange of information between the GP and the LP required to validate the migration is centralised and compliance and timeframes can be controlled and audited. One of the advantages of this process is that the migration timeline can be accurately monitored and managed which is an impotent gauge of customer experience; and

• The clearing house can act as virtual referee in terms of the exchange of data and monitor any failure to comply with the process.

It is important to note that we envisage that there would be some ‘behind the scenes’ process variations, although the customer experience should be consistent across platforms:

• Mobile: There are already plans underway to make improvements to the mobile process. It is proposed that the process will be GP led and near instant by September 2009. In addition no PAC will be required which would appear to fit well with this process. In this scenario, we would suggest that the process would work in the same way as outlined, where pre-agreed validation criteria would be automatically exchanged between the GP and LP thereby removing the obligation on the customer to facilitate the exchange of PAC codes; and

• Cable: In the cable industry it is only the transfer of the customer phone number that potentially takes place as opposed to a migration of the access infrastructure so there would not be a requirement for the cable industry to participate in this process in the same way, although this would be seamless to the customer. The GP would be empowered to coordinate the provision of the new service and the cessation of the existing one on behalf of the customer, subject to an agreed validation process.

A compensation framework could be implemented either immediately alongside the ICP process or following a consideration of whether there is further need to incentivise CPs to comply with the end to end process. This may be most appropriate following a review of the success of the ICP in meeting Ofcom’s consumer protection objectives.

We imagine the following general form for the compensation framework.

- Customer/GP/LP contacts compensation administrator with pre-defined details:
  - It is suggested that there would be a variety of communication methods to contact the Compensation Administrator including phone and email; and
  - Industry would agree to the details required by the compensation administrator to open a case and these would be communicated to the customer.

- Case number raised. The compensation administrator would log the details of the case in their database and generate a case number to give to the customer or CP.

- Compensation Administrator contacts the CP:
  - The Compensation Administrator would notify the named CP of the complaint via a dedicated point of contact; and
  - There would be an industry agreed timeframe, e.g. 48 hours, to respond to the complaint.
• CP investigates issue and updates compensation administrator/customer. The burden of proof would rest with the CP, i.e. the CP would need to provide evidence that they had not contravened the requirements. At this point it is important to consider how this would work in practice when evaluating the proposed process. It is difficult to imagine how the compensation administrator would be able to effectively manage disputes in cases where it is ultimately one stakeholder’s word against another’s. The risk here is that the benefit a compensation process offers could be outweighed by the numbers of disputes – and cost of resolving such disputes - this situation may generate. This suggests that significant consideration needs to be given to how any process could be centrally monitored and managed.

• Compensation payment issued:
  o If complaint upheld, the customer would be eligible for a compensation payment; and
  o The method of payment requires further consultation, including issues such as who issues the payment and how the costs are recovered from the CPs.

The compensation framework criteria would be based on the GP adhering to these industry agreed requirements. The nature and level of compensation is likely to be an issue of some debate and there is a clear need for consultation on this issue. It is important that compensation is linked to some measure of financial impact, and ARPU may provide an appropriate basis. There would also be a requirement for a compensation administration function to support this process. This function could use similar processes to those used by Otelo, the communications Ombudsman. We would also note that there remains a role for financial penalties under General Condition 22 for non compliance with the ICP process.
1 Introduction

1.1 Background

Ofcom has a duty to further the interests of citizens and consumers through a regulatory regime which, where appropriate, encourages competition. Effective competition delivers choice and lower prices to consumers as well as opportunities for new services and CPs. However, consumers may need protection from inappropriate and unacceptable behaviour by CPs that may undermine confidence in the market as well as causing individual harm. In particular, Ofcom has concerns in relation to:

• Mis-selling, which covers a range of sales and marketing activities, particularly in the voice industry;
• Slamming, where customers are simply switched from one company to another without their knowledge and consent;
• Failures to issue MACs, which appear to be the result of the dependency upon LP’s for the initiation of the process; and
• Poor overall “end-to-end” customer experience of migration demonstrated by the number of issues relating to tags and failed broadband migration cases raised by the industry.

In response to growing levels of complaint volumes about mis-selling and slamming, Ofcom introduced new measures in 2005 to improve the effectiveness of safeguards to protect consumers. These obligations were recently reviewed by Ofcom in order to see whether mis-selling of fixed-line telecommunications services had been addressed over the last two years to such an extent that it was appropriate to remove the current regulatory obligations. Ofcom’s conclusions were that, while there has been positive improvement over the last two years, they did not feel that sufficient progress had been made in reducing levels of mis-selling. As such, Ofcom has concluded that obligations for CPs to establish, and comply with, codes of practice for sales and marketing activity in accordance with published Ofcom guidelines, should be retained.

Alongside these developments further measures were implemented to improve the MAC process in February 2007 which were set out in the obligations under General Condition 22 providing CPs with a regulatory obligation to issue MAC codes within the predetermined timeframe or face the possibility of an Ofcom investigation and fine. Ofcom is now undertaking a review of the case for a single process for customer transfers for all transferable voice and broadband services. Ofcom’s February 2006 consultation document “Migrations, Switching, and Mis-selling” (Migrations consultation paper) established a view that there were valid reasons for contemplating a move away from product-specific migration processes towards more uniform processes, notably that:

• Customer experience depends on the product and service being migrated;
• Increasing volume and complexity of migrations will increase the demand being placed on migration processes initially developed for more simple migration production processes; and
• Difficulty and inefficiency of managing multiple and separate migration processes for existing providers and new entrants.


Following the Migrations consultation paper, Ofcom encouraged the industry to set up a Migrations Industry Working Group (IWG) to make recommendations to Ofcom on preferred options for single migrations processes, reporting on 21 September 2006.

The IWG report based its decisions around six principles which were related to different customer protection mechanisms and concluded that a single migration process was desirable, and recommended three options for further consultation.

However, the scope of the IWG was limited to examining switching between providers, residential consumers and small enterprises (ten employees or less) and line rental, call and broadband products only. Moreover, the IWG work focused solely on the best customer migration facilitator, and did not discuss implementation or detailed cost issues. As a result Ofcom commissioned Deloitte to develop ideas and explore issues which go beyond the matters raised and discussed as part of the IWG process. In particular, unlike the IWG, we have explicitly been requested to consider issues connected with the implementation and cost of various migration proposals. We have also considered a richer array of options than those studied by the IWG as a consequence of our investigations into international and sector based migration practices.

1.2 Scope of our work

1.2.1 Terms of reference

Ofcom has commissioned Deloitte to consider the relative costs and benefits of alternative ways in which Ofcom may implement a single migration process for transferable voice and broadband products. To this end, we have been requested to consider a variety of migration options with a view to developing an opinion on the implementation and ongoing operational and maintenance costs, transitional issues, and an evaluation of costs against the resultant “customer experience”.

Our Engagement Letter specified that we would carry out the following procedures:

- Build up a picture of the costs involved with implementing each migration option with particular consideration of:
  - The implementation costs; and
  - The ongoing operational and maintenance costs.
- Build up a picture of the consumer-related benefits associated with each option, including:
  - Assessing the extent to which each option would be capable of minimising barriers to churn, and minimising opportunities for “slamming” and mis-selling; and
  - Assessing each option from a ‘consumer experience’ perspective.
- Compare the costs and benefits of each option via a cost-benefit analytical framework, enabling comparison of the overall relative merits of each option.

1.2.2 Our overall approach

This project has been conducted in two phases. In the initial phase Deloitte considered the full range of potential migration models that could be considered. In this work a scoring framework was adopted which considered the relative benefits and costs of these options A key conclusion of this work was that the direct application of any existing migration model, from either the communications sector or elsewhere, did not meet the full scale of the requirements of Ofcom. It was agreed with Ofcom that in the second phase Deloitte would provide a more detailed analysis of four options that
covered the four types of potential mechanism: GP led, LP led, customer led and third party led. The following options were selected:

- **ICP process**: A variant of the existing MAC process which is Gaining Provider (GP) led and includes a simple third party intermediary to act as the communication facilitator between the GP and the Losing Provider (LP);

- **A Multi MAC process** which continues to be LP led and where the customer is responsible for obtaining an authorisation code for each of the following products they intend to switch: broadband access, fixed line access and mobile access. In scenarios where the customer wanted to switch to or from a bundle, they would need to provide the GP with all 3 codes (for a bundle with three products);

- **A single code process**: Where the customer would be assigned a single code which would be associated with their premises and where all their communications products and services would be associated with this code. The customer would use this code in a similar way in which the MAC and PAC is used in order to authorise and facilitate their migration request; and

- **A 3rd party data hub process**: Where in the absence of a single data repository of all network assets then a third party centralised data hub would facilitate the data transfers required for a migration between the LP, GP and access provider via numerous dedicated interfaces.

In addition we considered the merits of a compensation framework, based around a GP (gaining provider) led process involving compensation, and transfer notifications being issued to the customer. The objective of the framework is to penalise the CP in the event of non-compliance. The other options presented are more concerned with preventing non-compliance by facilitating the transfer and stipulating appropriate levels of validation and verification. For this reason, we do not envisage compensation being a migration process solution in its own right, rather as an added incentive to supplement another option to provide the ultimate consumer protection. This option is therefore designed to protect against any loopholes in the validation and verification features offered by other migration options.

These options are clearly comprehensive, in that they cover the complete range of customer contact points.

It was also agreed that our work in phase 2 should be based on the following considerations:

- The customer experience of the migration process should be explicitly considered in our analysis;

- High cost mechanisms should not simply be ruled out on the basis of cost alone. Rather a further analysis of the costs and benefits should be completed to determine if the process has the advantage of being able to address longer term strategic objectives as opposed to being a ‘quick fix’ solution to address current issues;

- Process options should be organised around different stakeholders, i.e. which stakeholder would be responsible for driving the process; and

- Potential variations of these process mechanisms should be considered to determine which is most likely to deliver maximum consumer protection and benefit within the industry technical constraints.

---

3 A summary of this work is provided as Annex 1 to this report.
We undertook numerous consultations and meetings with Ofcom staff over the course of this project. Our main contact point at Ofcom, as agreed in the Contract, was Gavin Daykin. We also made contact with numerous international regulators, primarily through Ofcom's international network. We also made contact with the UK regulators of water and energy. We held discussions and obtained information from industry representatives during a series of workshops held on the 26th and 27th of April at Ofcom’s offices. Representatives from the following organisations attended the workshops:

- Openreach;
- BT Retail;
- Tiscali;
- Tesco;
- Pipex;
- Scottish and Southern Energy;
- Thus;
- Carphone Warehouse;
- Sky;
- Virgin Media;
- 02;
- Vodafone;
- Orange; and
- Hutchison 3G.

1.2.3 Limitations on our work and its interpretation

This project has faced limited quantitative data available on:

- Consumer detriment from migration. We have sought to address this limitation by making the fullest possible use of statistics on slamming and mis-selling, considering other sources of qualitative information associated with the customer experience of migration, and through discussions with Ofcom staff and industry representatives; and

- The effectiveness of the migration processes in promoting competition in international locations.

We have also not been in a position to assess and comment upon the other work streams and consultations which Ofcom is undertaking in related areas, including work on mobile number portability, the measurement of mis-selling and slamming data, and enforcement and compliance work under the General Conditions. Conclusions are still emerging from these work streams and we would suggest that Ofcom considers our work in conjunction with this developing evidence base.

Deloitte have used our experience within the industry and across major IT implementation programmes to develop cost estimates for each option. These cost estimates have been constructed on a bottom-up basis and are subject to a number of important assumptions detailed elsewhere in our report.

It is inherently difficult to develop accurate estimates of the likely costs involved in moving to a streamlined industry migration process due to the number of variables involved, as well as the need...
to factor in detailed information relating to the operating model and cost base of each impacted service provider beyond that which is available in the public domain.

Additional analysis will be required to validate the assumptions made and to provide a more accurate estimate of the costs involved in implementing the final preferred option for specific service providers.

Notwithstanding these limitations, the cost estimates contained within the report have been developed with sufficient robustness to provide a baseline to enable comparison of the magnitude of the various options. Deloitte regard the conclusions of this report as providing a basis for Ofcom to further investigate the option recommended within this report.

1.3 This report

The remainder of this report is structured as follows:

- Section 2 presents our understanding of the current customer experience with regard to the migration of transferable voice and broadband products and the consumer detriment caused under the current variety of approaches;
- Section 3 considers international practice and experience relating to the customer transfer processes from international telecommunications markets and other sectors of the economy;
- Section 4 outlines the main operational features of each of the customer migration options that we consider which effect the practical migration of a customer with respect to different providers and packages;
- Section 5 considers the customers benefits and estimates the likely costs associated with each option; and
- Section 6 outlines a potential way forward based on our analysis.
2 Current market outcomes and customer experiences

This section discusses the current migration situation for transferable voice and broadband products, and the extent to which it causes consumer detriment and a need for change.

2.1 Current migration situation

Customer experiences of migration differ according to the type of product or service being migrated. The following figure summarises the current approaches to migrations across transferable products. It should, however, be noted that LLU MACs are now available for some products and that there are changes due to take place next year to the mobile number portability process to improve the migration timeframe and to begin to remove some of the dependencies on the LP in the process.

Figure 1: Current approaches to migrations across transferable products

<table>
<thead>
<tr>
<th>Product</th>
<th>Order authentication</th>
<th>End user notification/protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number portability</td>
<td>CLI and account number</td>
<td>LP contact with end-user</td>
</tr>
<tr>
<td>CPS</td>
<td>CLI and postcode</td>
<td>GP/LP mandatory notification of transfer letters</td>
</tr>
<tr>
<td>WLR</td>
<td>CLI and postcode or BT account number</td>
<td>GP/LP mandatory “notification of transfer” letters</td>
</tr>
<tr>
<td>Broadband IPStream</td>
<td>MAC Code (if supported)</td>
<td>EU contacts LP for MAC if supported, otherwise CLI</td>
</tr>
<tr>
<td>LLU SMPF</td>
<td>MAC code (if supported)</td>
<td>EU contacts LP for MAC if supported, otherwise CLI</td>
</tr>
<tr>
<td>LLU MPF</td>
<td>CLI and postcode (billing or installation) or BT account number</td>
<td>GP confirms to BT that has notified EU that all services will be ceased</td>
</tr>
</tbody>
</table>


2.2 Migration concerns and priorities

Ofcom believe that switching between providers is complex given different migration processes and support a move towards a single migrations process. The key rationale proposed by Ofcom include:

- Difficulty and inefficiency for CPs in managing multiple separate migration processes,
- Different customer experiences arising from the multiple separate processes,
- Continuing development of new and attractive products and services, and
- The increasing importance of bundled product offerings in the communications market.

Other concerns raised during the course of our work include:

- Number of mis-sells in the voice industry and failures to issue MACs, which appear to be the result of the dependency upon LP’s for the initiation of the process; and

---

4 Migrations, Switching, and Mis-Selling, Ofcom, 16 February 2006.
• Poor overall “end-to-end” customer experience of migration. This is demonstrated by the number of tag on the line and bridge cases for failed broadband migration cases raised by the industry.

Based on these perceived failures, our discussions with Ofcom identified the following priorities for any revised single migration process:
• A positive “end-to-end” experience for the customer;
• A ‘future proof’ process for migration that is ‘technologically neutral’, i.e. one that does not impair the ability of provider’s to satisfy customer requirements in other spheres through excessively onerous capital investment or compliance requirements or through other serious disruption to providers and/or customers; and
• A proportionate remedy, i.e. the overall cost (including initial set-up and ongoing maintenance) of the process to be in proportion to expected customer benefits.

2.3 Evidence on customer detriment

Our study has identified only limited formal quantitative evidence on this issue. Ofcom considered this issue in the migrations consultation paper. In this study, Ofcom states that the majority of broadband service changes appear to be effected seamlessly and with relatively little effort on the part of the consumer. However, they also note increasing consumer difficulties with the migration process and increased demand for broadband products which suggest that problems with transferring broadband services may become increasingly important in the future.

Ofcom have informed us that complaints to the OCC suggest that the MAC process comprises the biggest source of OCC cases in the context of migrations and switching. Furthermore, we understand that some 20 per cent of all customer complaints in telecommunications were about broadband migration, where customers experience problems with changing broadband service or the provision of service in a new property. Issues include ‘tag on the line’ and problems with MACs.

Our analysis of this data suggests that:
• Customers experience delay when a provider refuses or fails to deliver a MAC at the customer’s request, or when the MAC does not work as intended after it has been issued;
• Other problems include the difficulty of migrating away from LLU since the MAC process is not consistent across all Broadband products; and
• The largest source of complaints overall to OCC related to “tag on line”, which refers to the state wherein a customer cannot order a broadband service because there is or appears to be a pre-existing incompatible service already on the line. Whilst this problem is not specific to migrations and switching, it often arises in the context of these activities.

We understand that the OCC receives 4,800 annual complaints to do with slamming and mis-selling, and the same document implies 320,000 annual Cancel Other complaints. Whilst a recently Ofcom commissioned report suggests that slamming and mis-selling existed in 78% of a sample of cases recorded as such, this is clearly a substantial number.

---

5 Data provided by Ofcom relating to 2006

Some eight per cent of customer complaints were about slamming, where a customer is switched to a new supplier without their knowledge or consent; and mis-selling, where consumers sign up to a service based on information which they later find is untrue.

Data provided to us by Ofcom indicates a similar volume of complaints relating to the mobile market are received by Ofcom. Not all of these complaints necessarily relate to requested migrations, but they do illustrate the extent of some of the problems in specific areas of the communications market with respect to customer transfers.

Finally, there are aspects of the customer experience which are unlikely to be reflected in formal complaints and where no other estimates of customer detriment are available:

- **Cable:** During a cable migration the customer is responsible for managing and coordinating the entire process, a process which typically takes c.1 month. These two factors combine to increase the “stickiness” of cable products;

- **Mobile:** The mobile migrations process is heavily influenced by the issuing of the PAC (by the LP), which assumes that most migrating customers will wish to keep their numbers and will therefore require a PAC. Customers who abandon their existing number may do so because of the difficulties and inconvenience associated with the PAC process. Ofcom receive approximately 400 complaints per month in relation to mis-selling and slamming, primarily due to contract terms and cash back schemes. However, we note that the proposed changes to the MNP process are intended to address some of the issues with the current process which may act as a barrier to switching. It is currently planned to make the process GP led and ‘near instant’ by 2009 and remove the PAC code requirement to reduce the dependency on the LP to initiate the migration. This highlights the centrality of a convenient customer experience in any migrations process;

- **Broadband:** Ofcom have concluded that many customers have difficulty in switching, have experienced problems when moving home, and have been given confusing and contradictory information about the migrations process. Other sources of, at least partially, related consumer detriment include tags on lines, customer confusion regarding LLU/FMPF migration paths, and slowness or failure to issue MACs; and

- **Fixed line and carrier pre-select.** Slamming and mis-selling are serious problems in this segment of the market. There are also some concerns over the robustness of the LOA process as a migration facilitator in its own right.

In summary, Ofcom believes that multiple and inconsistent processes are likely to be a source of confusion for customers. Moreover, new technologies and services such as IPTV, VoIP and varieties of wireless services are all dependent on some form of broadband access and so elevate the importance of a seamless migration as a result of the customer’s reliance on these services. It seems unlikely that a separate migration process is required for these additional services due to their dependence on the underlying broadband access. As such, any proposed single migrations process must permit a positive “end-to-end” customer experience, while respecting other technological and commercial developments in the communications market.

---

7 *Broadband migrations: Enabling customer choice*, Ofcom, 17 August 2006
3 Lessons from international and sectoral experience

This section considers international practice and experience relating to the customer transfer processes from international telecommunications markets and other sectors of the economy. This analysis is conducted with a view to determining how such experience can be used to inform decisions on the desirability of particular migration options.

Our review sought to:

- Examine the different migration options which are deployed in international and sectoral markets; and
- Document the success of specific migration options in delivering a positive or improved customer experience and enhancing protection against slamming and other forms of mis-selling. However, in practice, there is limited formal evaluation of the success of such measures as they are closely related to many other regulatory questions and we have sought to take informal views from regulators where available.

3.1 Migration practices in other sectors of the economy

This section considers the types of migration options deployed in national and international regulated markets for utilities other than telecommunications, taking account of:

- The history and characteristics of these other sectors, to establish the constraints and issues which surround sectoral customer transfer processes and the differences and similarities to the UK telecommunications migration processes;
- The mechanisms used within these sectors to allow customer migrations; and
- The applicability of these mechanisms to the UK communications market.

3.1.1 Sector developments in the UK

The historical development of liberalised electricity and gas sectors has had an important impact on the type of migration processes used to transfer customers between providers. The privatisation of the England and Wales electricity industry involved the creation of a number of regional monopolies. However, arrangements were made to facilitate the customer switching by means of common administration services for retail access. Each regional operator manages a metering point administration service (known as MPAS), which all retailers of electricity can access by means of standardised communications protocols. Common standards are required to be upheld, and the switching process is the same for the retailer, regardless of which network owns the metering point. In other words, there is a single integrated process for switching. The use of a centralised database was facilitated and supported by the particular economic characteristics of the electricity industry. It is a requirement of the distribution and transporter licences that they provide the central registration services and the service is funded through the network price controls. The development of the gas industry has closely reflected developments in electricity, and has a similar centralised structure.

The centralised system used in the electricity and gas sectors is a historical legacy which cannot be readily replicated in other liberalised utilities markets, especially in the communications market for which numerous switching mechanisms (corresponding to numerous products) exist. The more
rapid pace of technological development in communications has increased the number of products available to customers, and this fragmentation has lead to a number of migration processes.

The commodity-based nature of the electricity and gas industries means that these industries have not had to face this issue to the same extent, and has therefore facilitated, to a greater or lesser extent a centralised customer transfer process. Relatedly, it is likely that the need for systems balance and coordination at an aggregate level in gas and particularly in electricity have in some measure indirectly contributed to the centralisation of customer migration facilities. Similarly, the simple Email based transfer system used in water is too unsophisticated for the volume of transfer in communications. While this discussion does not immediately rule out centralisation of databases and other aspects of the transfer process as an option, it must be borne in mind that the considerable costs of such an exercise will also face the difficulty of overcoming a substantial historical legacy.

The European Regulators Group for Electricity and Gas (ERGEG) proposed a number of high level switching mechanisms in July 2006, which argued the case for centralisation of switching processes. They proposed a best-practice switching mechanism which involves the customer contacting the new supplier only. The new supplier then contacts a party acting as an information hub which possesses access to the data needed in the switching process. The proposition is that the Distribution Systems Operator (DSO) generally acts as a data information hub and market facilitator given that the DSO will in most cases have primary access to customer data. The gaining and losing provider do not exchange information with each other under this scheme; instead this is mediated through the DSO (or other data information hub). Information on what is required to switch should be made public and be widely available, and contracting should be a written contract and be available electronically. Less idealised variants of this proposal exist to a greater or lesser extent in electricity and gas markets across Europe.

The typical process for switching in European electricity and gas markets is led by the gaining provider, who will generally make contact with the losing provider, although in some states (such as Italy, Hungary, Turkey, and Romania) the customer is also required to contact the former supplier. The gaining provider will then alert the DSO of the switch, and then informs the customer of the proposed switch to confirm the change. The DSO will typically operate a database containing information which is relevant to the customer and which is necessary to execute the transfer. A standard method of transmitting data is used to allow for enable electronic handling and storage of data without manual intervention, which increases the speed, security and reliability of the data transmissions and ensures that the stored information is correct, which reduces to some extent the possibility of mis-selling. However, poor data has been a source of delay and confusion in some countries and this is of relevance to the data integrity problems which appear to characterise some migrations in the UK communications market.

Different varieties of the typical process exist. Some jurisdictions require the customer to sign a confirmation, some permit a cooling off period, and suppliers may have a greater or lesser role in the migration process. There is a single process (within countries) for migration for electricity and for gas.

These concepts are important in terms of informing our analysis of the potential costs and benefits associated with any centralised switching process. Ofgem, the UK electricity and gas market regulator, has undertaken some research on the benefits of its own customer transfer process. In

---

9 European Regulators Group for Electricity and Gas (ERGEG), Supplier Switching Process Best Practice Proposition, July 2006

October 2002 Ofgem recommended that by April 2003 suppliers develop and implement arrangements for paying compensation to consumers where erroneous transfer had not been resolved within the standards defined in the Erroneous Transfer Customer Charter (ETCC). Under the ETCC, a customer can contact either the new or old supplier if they believe they have been erroneously transferred, and the contacted supplier then becomes responsible for redressing the problem, which minimises the number of customer touch points. The customer is required to be kept informed where possible. The ETCC also requires that the customer is sent confirmation that they will be returned to their original supplier within 20 working days of initial contact; before sending this letter a supplier needs to have agreed with the other supplier that the ET has taken place and how the customer should be returned, which requires an effective data transfer mechanism. Assessments of the ETCC have found it to be effective in reducing complaints and in fulfilling customer expectations, although some issues arose due to the fact that some suppliers did not have adequate monitoring procedures in place to control the erroneous transfer process. Customers are also eligible for compensation of £20 if they have not received a letter confirming that they will be transferred to their original supplier in 20 days. This time-limited aspect could potentially be incorporated into telecommunications compensation schemes, as Ofgem is of the opinion that the (voluntary) compensation scheme has focussed suppliers’ attention, and that the erroneous transfer scheme overall has reduced such transfers. It is important to note compensation is only payable when the customer has not received the advice letter within 20 days; in other words, it is not automatically payable in the event of an erroneous transfer. This experience is useful and informs our analysis of the costs and benefits of any form of compensation framework.

3.1.2 Applicability of mechanisms from other sectors to customer migrations in UK communications market

A variety of different mechanisms have been reviewed above from other sectors. Broadly speaking, for the purposes of the present exercise, one may classify the incentive schemes into the following high-level categories: performance against specified targets, comparative measures, adjustments to various price cap mechanisms (which can include performance against the aforementioned targets), awards and rewards, and financial penalties, which includes fines and compensation:

- Specified targets could conceivably take the form of defined performance metrics against which all providers are judged. The feasibility of such a scheme is considered below;
- Various forms of comparative performance measures assessed are also frequently deployed in pursuit of various regulatory objectives and as such we explore the possibility of using this type of instrument in the context of migrations;
- Price cap mechanisms are not appropriate in the present context, given the absence of this form of regulation at the retail level for most providers and types of products;
- Awards and rewards require some manner of financing from either industry or from an independent third party such as Ofcom. These are primarily used in the energy sector to shape behaviour in areas where outcomes are difficult to measure and where other forms of incentivisation are unlikely to be successful. Given these issues and the problems of financing it, this option was not pursued for further consideration in this study; and
- Financial penalties in various forms are relatively common in international telecommunications regulation as a means of ensuring compliance with various requirements, and as such we explore this option in more detail below.

---

3.2 International telecommunications experience

This section provides an overview of the extent to which it is possible to learn from international practice and experience in telecommunications. As noted above, in practice only limited direct information exists on the benefits of options considered and we have sought to contact with individuals working for international regulators in order to further understand these issues.

3.2.1 US telecommunications market

The customer transfer process for US telecommunications is set out in the Code of Federal Regulations\(^\text{12}\). The Code requires service providers to follow formal verification processes before consumers can be switched, which can involve independent third-party verification, written consent, or oral consent on a toll-free number.

The Code also stipulates that carriers must pay a penalty for slamming and failure to comply with applicable sections in the Code. In general, this penalty is 150\% of all charges paid to the submitting carrier after a violation, as well for additional amounts, though there are numerous qualifications to this depending on circumstances; an example below illustrates these qualifications. Any penalty levied on a supplier for slamming is payable to the customer’s authorised supplier.

If a US customer has not paid a bill which encompasses a slam, then:

- The customer does not have to pay anyone for service for up to 30 days after being slammed, neither the customer’s authorized telephone company (the company actually chosen to provide service) nor the slamming company; and
- The customer must pay any charges for service beyond 30 days to the authorized company, but at that company’s rates, not the slammer’s rates.

If a customer has paid a bill which encompasses a slam then:

- The slamming company must pay the customer’s authorized company 150\% of the charges it received from the customer;
- Out of this amount, the customer’s authorized company will then reimburse you 50\% of the charges the customer paid to the slammer; and
- The subscriber also has the option of asking the authorized carrier to re-rate the unauthorized carrier’s charges.

The Code operates at the Federal level, but 37 states (and the District of Columbia and Puerto Rico) also have state specific slamming rules, and customers who wish to make a complaint can do so at the state level if the customer is resident in one of the states or districts which have specific slamming provisions\(^\text{13}\). For the remaining states, resident customers may directly contact the FCC with a complaint related to violation of the code. State level provisions in general are very similar to those contained in the Code of Federal Regulations.

The involvement of two distinct levels of government complicates the analysis of assessing customer experience. This difficulty manifests itself in two ways: on the one hand, the number of states which collect data related to customer experience of transfer protocols (in particular protection from slamming) is large; and on the other hand, the option which customers have of contacting the FCC or their local state authorities further obscures the issue. Nevertheless, slamming complaints to the FCC appear to have declined since the introduction of the rules.

\(^{12}\) See paragraphs 64.1100 to 64.1190.

\(^{13}\) See www.fcc.gov/slamming
No other studies or data on aspects of the customer experience other than slamming are available, and the FCC has not responded to any enquiry from Deloitte in this regard.

One indication of the merits of the US approach is that the recent Energy Policy Act empowers the Federal Trade Commission to implement rules that protect electric consumers. It is likely that any such rules for electricity would parallel existing rules that apply already to telecommunications carriers.

The use of compensation is an important feature of the US system, although we note that the system is somewhat asymmetric in that the slammed customer does not recover all funds paid to the slamming if the customer has paid the bill, whereas if the customer has not paid a slamming bill then the authorised provider is not permitted to recover due funds. It is likely that any transplantation of the US system may wish to address and perhaps improve upon this feature of the compensation system.

3.2.2 Irish telecommunications market

Irish customers must sign a customer authority form or use an independent third party verification process (which does not require the customer’s signature and gaining providers may elect to use their own third party verifiers) or fill out an online form over the internet to change their telephone service. No MAC is issued. The telephone call between the customer and the third party verification body is recorded and must be produced within two days if the transfer is challenged. If the customer authority form or third party verification record cannot be produced the consumer cannot be switched. The process of third party verification is protected by statutory Distance Selling Regulations.

When a customer signs up with a new service provider, previous suppliers are not permitted to make contact in relation to telephone service for a period of four months. Previous supplier may contact the customer on any other matter which does not directly relate to the provision of the customer’s telephone service. Customers also have the right to request that no further contact should be made at all from previous supplier. There is no obligation for the customer to contact the losing provider, although customers may wish to contact losing provider to discuss existing contractual commitments. Existing service provider will send a letter to verify that you have consented to the change, and customers only need to respond if the customer has not consented to the change. Comreg, the Irish telecommunications regulator, has been requested to provide information on the customer benefits delivered by these requirements.

The IWG report did not address the Irish experience in the context of the discussion on Third Party Validation (Level 1), and it is perhaps worth quoting their remarks in this regard: “Third party validation very similar to the IWG level 1 definition is currently used in Ireland quite successfully. It is unclear however, whether a third party process inherently reduces instances of slamming and mis-selling, or whether it simply provides evidence for subsequent corrective action”14.

The Irish system contains a number of interesting features, including the use of a simple third party verification system, and stipulations regarding the degree of contact which a customer may bear from the losing provider. A useful feature of this process is that it embodies a certain amount of customer choice, and modifications and transplantations of this idea could further enhance the customer experience depending on the market and types of objectives being addressed.

3.2.3 Australian telecommunications market

A code of practice for customer transfer exists in Australia. The process is primarily driven by the gaining provider, who must take all reasonable steps to ensure that the person who initiates the

14 We did not receive a response to our two enquiries to Comreg
transfer is identified (at the point of sale and must confirm the identity of the GP) and has authority to make the proposed change. A transfer is authorised only when all of the following elements have been satisfactorily expedited:\(^\text{15}\):

- Authorised customer is identified;
- Details of transfer are checked with customer;
- Authorised customer has given informed consent to transfer;
- Cooling off period has elapsed and customer has not rescinded consent; and
- Applicable process of verification takes place.

The GP is responsible for creating and retaining a record of the customer’s consent, must notify the customer within ten days that the transfer has taken place, and must also disclose information on request to customers relating the supplier’s contact details, information regarding cooling-off, and provide details for enquiries and complaints. Where a slam has been identified as having taken place, all parties involved are required to take immediate action\(^\text{16}\). The losing provider must inform other parties of the invalid transfer, and the end user must not be disadvantaged during the process. The Communications Alliance (the Australian self regulatory body) has developed a number of customer transfer protocols. These are contained in industry codes, including the customer transfer code, commercial churn code and codes dealing with number portability.

The Australian example is one of a gaining provider-led process. It appears to provide a reasonable measure of protection from mis-selling while not imposing undue burdens on either the provider or the customer. One significant feature of the process is that the customer is well informed, as the provider is obliged to give the customer information regarding cooling-off periods, means of complaint, and the customer is identified. However, the number of end-user touch points appears relatively manageable from the perspective of the customer.

3.2.4 Portuguese telecommunications market

The Portuguese regulator’s response to our enquiry noted that Portugal Telecom, has achieved, since 2005, agreements to simplify the process of changing service providers in the context of LLU, resale, portability, and pre-selection. The intention of these processes is to allow the various parties to the migration on the provider side to trust each other (where binding rules are not in place) and to increase the speed of the migration from the customer’s perspective. Customer’s who have been slammed are not required to pay bills which would otherwise be due to the slamming provider, and are required to compensate the authorised provider\(^\text{17}\). The regulator has also issued a determination in May 2006 which prohibited win-back activity for a period of 4 months. This prohibition was imposed on companies which are group companies of the incumbent (Portugal Telecom).

3.2.5 Danish telecommunications market

Danish subscribers make contact with the end-using customer contacting the GP for a number to be ported. In order to effect the port, the GP contacts the LP and the customer is not involved any further. The GP is allowed to charge a fee as part of this process but the LP is prohibited from doing


so. This is intended to encourage competition and number portability. The Danish regulator did not provide any further information on the migration process.

### 3.2.6 French telecommunications market

French customers may seek damages for slamming by either contacting the offending operator directly or by contacting the telephony mediator (Le médiateur des communications électroniques). The French regulator did not respond to our enquiries.

### 3.3 Conclusions from international and sectoral experiences

This section examined the emerging lessons from the experience of the various international jurisdictions and sectors covered in our review. As a general matter, the economic characteristics of utilities industries of various sectors have driven the shape of customer transfer processes, and this should be borne in mind when thinking about the transferability of practices from other industries and sectors. However, the key points of interest with regard to international and sectoral migrations processes which we will consider in the next section relate to:

- Centralisation of customer transfer protocols is also a characteristic of the majority of European electricity and gas markets. However, the distinct character of other utilities industries places significant limits on the extent to which it is possible to transplant practices into the UK communications market;

- There is a dominance of GP-led processes international and sectoral case studies, and the Australian and Danish regimes in particular manage the validation of customers by taking appropriate steps to ensure that the person who initiates the transfer is identified. This is an important consideration since it appears to provide a reasonable level of customer protection against mis-selling without significant burdens on the CP or customer; and

- Various processes include compensation, e.g. Irish and US telecommunications markets and the UK electricity market, and third party validation, e.g. US, Canadian, and Irish telecommunications markets. The UK electricity industry has had success in reducing mis-selling and complaints related to the transfer process through its use of a centralised process, compensation and fines.
4 Potential migration options

Following our first phase of work (including analysis of approaches to migration and discussions with Ofcom, industry, UK utility regulators and international telecommunications regulators) a long list of options for the single migration process was narrowed down to four options for further investigation. Those options rejected from the long list were typically rejected on the basis the applied cost benefit criteria which demanded the options exhibited increased customer benefit compared to the status quo and addressed some of the specific process issues this report has already identified.

The options selected for further consideration in this phase of our work were selected based on providing coverage of the four types of option: GP led, LP led, customer led and third party led. Within these categories, the following options were selected from our initial phase of work as having the best combination of costs and benefits:

- A multi MAC process which continues to be LP led and where the customer is responsible for obtaining an authorisation code for each of the following products they intend to switch; broadband access, fixed line access and mobile access. In scenarios where the customer wanted to switch to or from a bundle they would need to provide the GP with all 3 codes (for a bundle with three products);
- An ICP process: a revision and extension of the current MAC process, which is GP led and includes a simple third party intermediary to act as the communication facilitator between the GP and the LP;
- A third party mechanism: where in the absence of a single data repository of all network assets then a third party centralised data hub would facilitate the data transfers required for a migration between the LP, GP and access provider via numerous dedicated interfaces; and
- A single code mechanism: where the customer would be assigned a single code which would be associated with their premises and where all their communications products and services would be associated with this code. The customer would use this code in a similar way in which the MAC and PAC is used in order to authorise and facilitate their migration request.

In addition, we have considered a customer protection mechanism to support the customer experience and incentivise compliance with any migration option in the form of a compensation framework. The mechanism is based around a GP led process involving compensation, and transfer notifications being issued to the customer.

This section outlines the main operational features of each of the migration options considered. Some of the features will be recognisable from the international and sector case studies presented.

4.1 3rd party data hub process

The 3rd party data hub process considered for the short list is the most ambitious and technically and operationally complex option, as well as being at the most extreme version of centralisation of the process. However, both Ofcom and Deloitte have concluded that this option deserves careful consideration given its potential long terms benefits for the industry and the consumer.

In the absence of a single data repository of all network assets, the migration process would involve coordination between the LP, GP and access provider where applicable, via numerous dedicated interfaces. Consequently the ability of a 3rd Party to facilitate the process is obstructed by the number of provider specific systems and interfaces involved.
It is envisaged that a centralised switching mechanism would involve the customer contacting the GP only. It would be the customer’s choice as to whether they decided to contact their LP to inform them that they were intending to switch. The new supplier would then contact a 3rd party acting as an information hub which possesses access to the data needed in the switching process. The GP and LP would not exchange information with each other under this scheme; rather it would be mediated through the 3rd Party. The 3rd Party would operate a centralised database containing information relevant to the customer and necessary to execute the transfer.

The requirement would be for a complete view of customer products and services across multiple organisations, channels and business lines, where there are multiple sources of customer data in multiple applications, systems and databases. It seems likely that only by creating a central data integration hub to federate the key master data across the various sources of the customer data, would a comprehensive source of data and customer information file be achieved and maintained. This model assumes there would be some form of matching the data to a unique identifier, as without this capability there would be no way of resolving data quality and inconsistency problems that lie in the source data.

4.1.1 Issues for consideration

It is necessary to highlight a number of issues that are critical to evaluating how this option might be implemented and which drive the cost of its implementation:

- Data analysis: Inaccurate data is constantly being created, and this process would lead to a significant requirement to cleanse existing data as well as an ongoing process for routinely cleaning, grouping and enhancing the data to maintain accurate customer, product, and asset data;
- Equivalence: This process requires an architecture that would need to be able to deal with the high volumes of transactions processed by the larger communications providers as well as the low volumes processed by much smaller operations. It would require real time maintenance as well as real time interfaces to the communications providers 24x7. We have assumed that the solution would be a hosted, maintained by a 3rd Party yet to be identified, and fully auditable;
- Interfaces: It is likely that all transactions including new provides, ceases and upgrades as well as migrations should go via the hub to preserve data integrity. The interface between the central hub and the GP would need to trigger events in the CP workflow such as sending welcome communications, order updates and trigger CPE dispatch and install. The interface with the central hub and the LP would need to trigger events in the communications provider workflow so that the customer should still receive a confirmation of cancellation notice from the LP. We have assumed that interfaces would be developed via some form of service orientated architecture and that CPs would be responsible for the costs of creating their own interfaces to it. The high level of investment required means that smaller CPs are likely to consider using hosted messaging solutions/interface. Any change to the centralised hub would lead to a need for the CPs to change their interface; and
- Future proofing: The main rationale for considering this option is its ability to manage any future development of the sector. As such, it is critical that it be designed to have a modular basis to provide the level of flexibility required for the fast paced nature of product / service evolution within the industry.

4.1.2 Process description

The following figure provides a high level illustration of the process to be followed where a customer switches to an alternative provider of a different product using the 3rd party solution outlined.
Figure 2: Example key master data sources required by the centralised data hub

The retailer/reseller would send an instruction to the central switching agent informing them of the unique identifier and details of the product to be provided. This instruction would be sent from the customers OSS via their business as usual order workflow but is likely to be via some form of SOA interface to the 3rd Party data integration hub.

On receipt of the instruction, the central switching hub will validate the application against the information held on the central system and will either:

- If there are any errors with the data in accordance with the rejection rules, send the retailer/reseller a rejection data flow and the original request should be re submitted with corrected details; or
- If no errors are found, send a data flow with a code indicating that the requested switch request has been accepted.

The central system will then send duplicate data flows to the existing retailer/wholesaler, the wholesale provider and the network provider. The existing retailer/wholesaler will update their records accordingly. The wholesale/network provider will execute the order.

Subsequent data flows from the wholesale/network provider will be sent to the gaining provider to communicate the status of the order. These updates will again be via the SOA interface. Consequently any CPE equipment install/dispatch can be triggered.
4.2 Multi Mac

The concept of a migration authorisation code has significant benefits as its use in the Broadband (MAC) and mobile number portability (PAC) process has demonstrated. It has been particularly successful in reducing the risk of slamming and in facilitating any migration between providers. For this reason its extension to other communications products seems a logical one.

4.2.1 Process description

The main feature of this process is that the customer is responsible for obtaining an authorisation code for each of the following products they intend to switch: broadband access, fixed line access and mobile access. In scenarios where the customer wanted to switch to or from a bundle they would need to provide the GP with all 3 codes (for a bundle with three products).

This mechanism would work in the same way as the current process for broadband and mobile migrations, and would involve the customer being issued an authorisation code at the point at which they request to switch providers. The code is generated by the LP and has a limited lifespan before it expires. The code is used as a unique reference to protect against slamming.

To extend the current MAC process across industry it would need to be extended to fixed line voice services as well as cable and mobile products and be fully operational between all BT Wholesale and Openreach products. All MACs would require a single, industry agreed format be generated from a single source. Due to the differences in infrastructure, further consideration would need to be given to whether there would be one party responsible for generating and maintaining MACs for the whole of the transferable voice and broadband industry, one for cable, and another for the mobile
industry. It should be noted that the MAC and mobile PAC currently have limited lifespan; the requirement, feasibility, implications and therefore cost of extending the lifespan of these codes has not been considered in our analysis.

It is assumed that extending the current MAC process to fixed line voice would be the most straightforward in relative terms since it would involve extending and enhancing existing MAC functionality provided by Openreach. This is not to underestimate the significant scale of work that would be required in terms of development and process re-engineering and also the assessment process for determining who should be responsible for building and maintaining the agreed solution. With mobile and cable operators now included in this process it is likely that there would be concern from industry relating to Openreach having responsibility for this overall process end to end.

A consideration for this option is whether the process should be extended to CPS products. CPS services are dependent on the underlying fixed line access that support it and in the case of erroneous transfers, service restoration is relatively easy. This is obviously not the case for broadband or fixed line transfers. It could therefore be argued that the MAC process should only be extended to the access products, i.e. WLR and FMPF as opposed to call packages provided by CPS.

Extending the MAC process to the mobile industry would mean that a MAC would be required for all transfers. Currently the industry uses PAC rather than MAC. Whilst this is effective we would note that PAC is not a consumer protection measure since the code is not required to switch provider; rather it is used to port the customer’s mobile phone number. This presents a question as to whether the mobile process has already moved on from the authorisation code concept, which in turn raises concern regarding its suitability for other products.

There would be significant change for the cable industry since they have little experience of the authorisation code process. In the case of cable migrations, since the underlying infrastructure is different, there is no authorisation code legacy and the code would have no purpose in facilitating the migration since a cease of one service and a new provide of another service has to take place other than where the customer wishes to transfer their telephone number.

However, the current switching process from cable to an alternative provider using copper access; means that there are multiple touch points that need to handled by the customer in order to get a new line installed and receiving new services. Consequently it is useful to consider if the MAC process could improve this process in terms of the customer experience and timeframe. The MAC could be used by the GP as authorisation to coordinate and manage the migration on behalf of the customer, reducing the number of contacts the customer is required to make.

With regard to other, other new wave services such as wireless access, VoIP and IPTV along with other service related features such as email addresses; then these would not be subject to a MAC. These services are delivered as a result of the underlying architecture and so are dependent on the transfer of that access. Consequently customers must be clear from the outset that changing their access provider is likely to result in the loss of these services e.g. their VoIP number and their current email address. This emphasises the priority that must be placed on customer education and verification which we consider in the next section.

4.3 ICP process

A revision of the MAC process across industry in its current form would mean that the customer would be responsible for obtaining an authorisation code for each of the access products they intend to switch as per the process outlined in the Multi MAC option. We will consider some of the customer convenience issues this creates in the next section, most notably those related to it being LP led. Consequently, Deloitte have proposed a revised process based on migration features of international practices to create what this report will refer to as the ‘ICP process’. The process is derived from the
MAC process and in particular its strength in terms of the validation benefits it offers the customer. It also presents one of the least complex forms of process centralisation. The fundamental features of the solution are that it is GP led and has the ability to facilitate and record the timely exchange of information between CPs as opposed to creating another customer and asset data repository for industry to maintain.

4.3.1 Issues for consideration – limitations of the current MAC process

The main areas in which a simple extension of the LP led MAC process is limited are:

- Its inability to manage multiple contact points and the time and inconvenience associated with this. Assuming no issues, switching a bundle including fixed line voice, CPS voice, mobile and broadband would require eight contacts at a minimum. This could discourage customers from switching, as well as representing a significant impairment of customer convenience; and

- LPs face weak incentives to issue a MAC to a customer in a timely manner. Even after the MAC has been issued, there may also be problems of code transcription, or other delays and inconvenience in activation.

However, with some enhancements to address the above, a revised process could provide a credible option for the single transferable system. In particular, it appears likely that if the LP contact basis were to be addressed then the process would perform well:

- The current performance of the broadband migrations process in terms of its validation features as demonstrated by the Broadband migration mis-selling statistics when compared to those where a MAC process is not in place highlights its effectiveness; and

- The dominance of GP Led solutions in international experience suggests the advantages in making the process less burdensome for the customer outweigh the potential disadvantages in terms of the potential for subscription fraud.

The MAC process could be made ‘invisible’ to customers by creating a validation process whereby the GP and LP liaise directly to request and issue the authorisation code. It is important to note that in this context it is proposed that the code would not be the MAC in its current form as operated by Openreach, but rather an agreed form of migration authorisation based on validation criteria to be exchanged at the CP level. Whilst this may mildly dilute the level of consumer protection it offers, this risk could be effectively mitigated by:

- Facilitation of the process by a 3rd party clearing house, i.e. the ICP system acting as a virtual referee;

- The GP having a regulatory obligation, similar to those for Broadband providers under General Condition 22, to comply with industry agreed forms of validation as used in the Australian and Danish migration processes; and

- The LP having a regulatory obligation to automatically confirm the details submitted by the GP for authorisation, thereby reducing the ability of the LP to arbitrarily reject migration requests.

To reduce the possibility of stickiness and other impairments to the customer experience brought about by multiple touch points, a common format could be developed for communications between CPs for the exchange of subscriber information. This would prevent arbitrary rejection of migration requests by operators, and would help reduce the burden on the customer of obtaining multiple MACs from the LP.
In summary, a GP led process facilitated by the specific advantages an ICP process could offer appears to present a strong process option within the assessment criteria of customer benefit relative to cost. The benefits can be viewed as those generic to a GP led process:

- The onus on the customer to facilitate the process is removed and the GP has a new role as being the recognised and responsible owner and facilitator of the transfer process and the single point of contact for the customer;
- The option can be implemented on an incremental basis thereby allowing the incremental benefits to be assessed and minimising the risk of any implementation issues and disruption to industry;

And those specific to the ICP process proposed:

- There is a significant level of validation and verification that takes place to protect the customer against unauthorised migrations as a result of the data validation between the GP and the LP facilitated by the ICP, and the subsequent customer communications this would trigger. This validation is particularly important in the context of bundle and LLU migrations where new forms of slamming could potentially emerge. A customer could easily find their line rental and call package switched following a request to transfer their broadband service;
- There is a single centralised gateway/interface for CP to CP communications as opposed to the one to many interfaces that would need to be in place to facilitate communication between all CPs. If we consider the number of interfaces each CP would need to create to interface with other CPs in migrations scenarios it is obvious that this would soon become a matrix of communications points and could become unmanageable. This is a risk to the effectiveness and timeliness of the process in itself;
- The exchange of information between the GP and the LP required to validate the migration is centralised and can be controlled and audited, this is particularly important for the regulator in identifying and implementing further enhancements to the process and in the case of any disputes. The clearing house can act as virtual referee in terms of the exchange of data and monitor any failure to comply with the process. It could be argued as per one of the initial options that a 3rd party could be placed at the beginning of the process to represent this layer of additional validation. It is however our conclusion that this solution would not be beneficial to the customer; firstly because in the context of complex bundles it would be very challenging to ensure the 3rd Party representatives were sufficiently knowledgeable regarding the multitude of communications packages to be able to competently advise the customer. Secondly, because this still does not resolve the issue that the customer does not have a single point of contact and ownership; the role that is envisaged for the GP in the case of migrations process issues, who is empowered to resolve the issue on their behalf; and
- The option is flexible in the sense that there is further scope and opportunity to enhance and increase the role of the ICP system in the transfer process; for example to drive further improvements in the speed of the migrations process and to include new access products in the process without the requirement for a process overhaul.

### 4.3.2 Process description

The figure below illustrates how this process might work in practice:

**Figure 4: ICP process overview**
Customer contacts GP and requests migration: The customer may contact GP via number of sales channels: phone call, internet sign up, retail outlet etc.

GP collects predefined information and request MACs on ICP system:

- The GP has an obligation to capture an industry agreed set of information to verify the customer and the products and service they wish to migrate as per the process used by Australian providers;
- There is an industry agreed minimum requirement for customer verification; it is suggested that this might include online validation of bank details, customer name, CLI, postcode, Date of Birth and mobile contact number;
- There would be a requirement for the GP to make the customer aware; perhaps via an agreed script that if they are unsure as to the products and services they subscribe to from an alternative subscriber then they should contact their LP directly to understand the implications of their decision to switch their existing services. It is then the customer’s decision as to whether they choose to contact their LP; and
- The requirement would remain for the GP to send the customer confirmation of their order. This communication may take several forms; email, letter, text message. The GP would be required to outline the following information in the date of transfer, payment method and details of what the customer should do/who they should contact if they have not authorised the order or if they have changed their mind and next steps in the process. There should also be a reminder that if the customer is unsure about the implications for their existing services with an alternative provider then they should contact the LP to discuss.

Migration request received by ICP:

- Predefined porting information is entered into a GUI; and
- Customer data request sent to LP for validation;

The information is exchanged with the LP via a centralised clearing house (the proposed ICP mechanism). The clearing house validates the customer transfer information and tracks it. It is important to note that this process should be fully automated and take place within minutes as there should be no detriment to the customer in terms of this validation increasing the migrations lead-time. The LP would be required to respond within an agreed timeframe and the automated validation of customer data should minimise the risk of the LP being able to arbitrarily reject or block the GP request. It is suggested that this would be one of the key performance indicators monitored by the ICP process. It is important to note that in this context the MAC is not likely to be in its current form as administered by Openreach but some pre agreed form of authorisation code that can record that the request has been validated via the centralised system and provide an audit trail.

Incentive to comply will be on the basis of monthly key performance indicators reported on by the ICP process with clear, pre-agreed and pre-defined penalties payable on a monthly basis for non compliance. It is also envisaged that further penalties could be enforced under conditions similar to those for General Condition 22.
• On receipt of the validation code, the GP places a migration order. This is conducted as per the business as usual ordering process and the LP would still send the customer some form of exit communication containing pre-agreed information once they had issued the validation code. It is recognised that this is likely to involve significant changes to the broadband and mobile switching processes since MAC and PAC codes in the current form would not be required.

• The exit communications from the LP might include details of their outstanding balance and confirmation of the products and services that will be transferred. This communication form could be letter/text message/email and should also contain details of what to do if the customer has not authorised the migration in terms of who to contact. The customer has therefore had 2 communications, a welcome one from the GP and an exit one from the LP confirming their migration details so that they are well informed with regard to their migration.

• Migration complete.

Further industry consultation would be required as to the LP exit communication method with the customer on notification of their decision to switch. Some CPs may request that they are able to complete an outbound call which they may see as an opportunity for win back. This may be permitted but there must be clear guidelines as to the purpose of the call to ensure that it is not an opportunity to scaremonger the customer into cancelling their order with the GP.

There are several different methodologies that could be used to facilitate inter CP communication. This is a key element for consultation with industry and their vendors. The method assumed is a fully automated exchange through a single central clearing house. This method uses a pre-determined format for the data and can be completed in minutes. This automated exchange would be facilitated by a dedicated gateway. The system would then validate the data and track the exchange of migration information end to end. Once the information required to validate the migration has been exchanged then the ordering process would continue as per the business as usual ordering processes.

Inevitably there will be a significant cost associated with the deployment of any centralised solution. However, based on the qualitative evidence available there are a number of potential advantages to a fully centralised communications solution when compared to the alternative of peer to peer communications between the CPs:

• The current peer to peer communications lack transparency and there is little evidence to suggest that current peer to peer communication arrangements are effective. Levels and competition in the market do not encourage this form of joint cooperation between competing CPs, and commercial interests are likely to result in inconsistencies in the effectiveness of communications between different CPs. The lack of process consistency and transparency in terms of data sent and received makes it difficult to manage cases of non-compliance, removing the potential to centrally observe, manage and audit the process;

• The process would be more deterministic, with the ability to measure and monitor progress at key stages and identify the cause of any breakdown in information flow where applicable;

• The onus on the customer to facilitate the process is removed and the GP has a new role as being the recognised and responsible owner and facilitator of the transfer process and the single point of contact for the customer;

• There is a significant level of validation and verification that takes place to protect the customer against unauthorised migrations as a result of the data that is validated between the GP and the LP and the subsequent customer communications this would trigger;
• There is a single gateway/interface for CP to CP communications as opposed to the one to many interfaces that would need to be in place to facilitate communication between all CPs. If we consider the number of interfaces each CP would need to create to interface with other in migrations scenarios it is clear that this would require a matrix of communications points and could become unmanageable and a risk to the effectiveness and timeliness of the process; and

• The exchange of information between the GP and the LP required to validate the migration is centralised and is transparent in that it can be controlled and audited. This is particularly important in identifying and implementing further enhancements to the process and in the case of any disputes. The clearing house can act as virtual referee in terms of the exchange of data and monitor any failure to comply with the process.

It should be noted that there would be ‘behind the scenes’ process variations:

• Since the migration authorisation is GP led and involves a back office transfer between the GP and the LP the MAC code in its current form would be redundant. For the purposes of this process option what we view as a MAC would instead be some pre agreed form of authorisation code that can record that the request has been validated via the centralised system. We would recommend that this issue is a basis for consultation with the industry as there are obviously implications to be considered as to whether this code would be mandatory to initiate orders, or as is proposed here, it is evidence of compliance in the event that a migration process issues.

• Mobile: The PAC is currently generated by a centralised brokering system and passed to the GP by the customer having requested it from the LP. In the case of mobile transfers, since changes are already underway to make the mobile switching process GP led, and to remove the requirement for a PAC, Deloitte suggest that the process would work in the same way as outlined above; and

• Cable: As in the cable industry it is only potentially the transfer of the customer’s phone number that takes place then there would not be a requirement for the cable industry to participate in this process in the same way, although this would be seamless to the customer. The GP would use the ICP process to:
  o Validate customer details.
  o Provide them with authorisation to coordinate the provision of the new service.
  o Cease provision of the existing service on behalf of the customer.

4.4 Single code mechanism

The precedent for the single code is the gas and electricity industry, where here the code relates to one commodity only. In the communications industry, there would be multiple products and services associated with the code which would be associated with the consumers premises. It is envisaged that the code would work in the same way as the current MAC/PAC process but the customer would keep the same code throughout their tenure. It should be noted that like the centralised data hub this option has high process centralisation and the costs and risks will reflect this.

4.4.1 Process description

This option could supplement a GP or customer led process by providing the customer with a unique identifier relating to all their communications products and services and based on the customer premises:
- The customer would present the GP with their unique code along with other information, as a way of validating their decision to switch;
- The GP could then validate this code against a central database. This could be completed on a real time basis over the phone or via a terminal in the case of retail outlets;
- The codes would be held in this central database. All CPs would have access to the database. The customer’s full portfolio of communications products and services would be associated with this code. Consequently the customer would always have the same identifier regardless of which service provider they subscribed to. The code would be updated and maintained by the infrastructure providers; and
- Once validated then the code would be used in the same way as the existing MAC process in that the GP would then use this to place an order with the provider.

The following figure provides an overview of how the single code mechanism might work in practice:

**Figure 5: Single code process overview**

Such a database would perform well in terms of customer protection and the GP being able to validate that the account holder. However the issue around verifying which products and service they want to migrate is more complex. Such a system would offer little protection in this regard unless the customer was issued a PIN for each product and service associated with a single code.

The most obvious obstacle to this mechanism is the number of products and services that might be associated with the customer’s code and the level of interaction required to maintain the accuracy of this. In addition, there may be multiple occupants of a single premise which would complicate the structure of any such database further.

### 4.5 Compensation framework

Based on our discussions with stakeholders, compensation incorporates 3 possible key features;

- Compensation payments made to customers and LPs in the event of slamming or non compliance with migration regulations;
- The publication of CPIs; and
- The possibility of introducing, on a phased basis, a tiered provisioning again based on non compliance.

A compensation framework would entail the establishment of a 3rd Party function to manage and facilitate any process. The principle function of the compensation mechanism would be to protect the customer against unauthorised transfers or ‘slamming’, but would also have an important secondary role in ensuring a satisfactory migrations process from the point of view of consumers.

There appears to be insufficient benefit provided by simply supplementing the current as-is process with compensation, where for example it could be as-is but GP led with a penalty per slam or per LP migration obstruction. It is difficult to imagine how cases of mis-selling and other migration related complaints could effectively be investigated to clearly ascertain responsibility. Consequently there is
a risk in creating another route for complaints that could result in the function becoming overwhelmed and ultimately ineffective. Any compensation framework needs to be designed and implemented with caution to ensure that it encourages the right behaviour amongst the CP community but also amongst the customer community. The process it supports needs to be effective and transparent in its own right before it can benefit from the added advantages the framework would offer.

It is envisaged that such a scheme would operate in a similar way to the current alternative dispute resolution schemes within the industry such as Otelo and CISAs. The funding structure would be similar to Otelo in terms of an annual subscription and a monthly fee based on the cases investigated and would be led by the GP, who would be required to make “best efforts” in terms of industry agreed validation criteria, to validate the customer at the outset; this is similar to the Australian migrations process. We propose that compensation would be payable in the event of a failure to undertake or show evidence of best practices.

4.5.1 Process description

Figure 6: Compensation administration process to support single migration process

- Customer/GP/LP contacts compensation administrator with pre-defined details:
  - It is suggested that there would be a variety of communication methods to contact the Compensation Administrator including phone and email; and
  - Industry would agree to the details required by the compensation administrator to open a case and these would be communicated to the customer. For example, it is recognised that there may be some issues outside of the CPs control which mean that the order is delayed. However in these circumstances, the onus is on the CP to communicate with the customer and keep them fully updated with regard to the status of their order.

- Case number raised. The compensation administrator would log the details of the case in their database and generate a case number to give to the customer or CP.

- Compensation Administrator contacts CP:
  - The compensation Administrator would notify the named CP of the complaint via a dedicated point of contact; and
  - There would be an industry agreed timeframe e.g. 48 hours in which the CP would have to respond to the complaint.

- CP investigates issue and updates compensation administrator/customer. In responding to the complaint then the CP would need to provide evidence that they had not contravened the process requirements. The burden of proof would therefore rest with the CP.

- Compensation payment issued:
  - Depending whether the compensation administrator agreed uphold the customer complaint then the customer would be eligible for a compensation payment; and
  - We would suggest that how this payment is issued is a matter for consultation. It would need to be decided as to who issues the payment and how the costs are recovered from the CPs.
There are a number of mechanisms by which this compensation might be issued, however the most effective method would appear to be for the compensation to be issued by the GP and invoiced back to the LP/slammer. The 3rd Party would then issue CPs with a monthly statement of compensation payments required for consumers and LPs. The extension of compensation to CPs could also be considered within the compensation framework as is the case in the Portuguese Telecommunications market. The charges incurred by the LP when a customer is slammed in terms of the migration and service restoration costs in remedying the situation from the consumer’s perspective are significant.

At this point it is important to recognise that the success of the framework will be dependent on the information available to it to complete an investigation and make a judgement. This does suggest that a centralised process would be an important factor in ensuring this option was effective. An advantage of the ICP process in particular is that as a result of the data passing through it, the time and date stamp recorded provide a critical role in being able to accurately monitor and manage compliance.

4.5.2 Levels of compensation

Given a desire to introduce a compensation scheme, the amount of such compensation must be established to ensure it does adequately incentivise compliance since this is its key success factor. One approach is to examine levels of compensation in other jurisdictions and sectors and relate these compensation levels to industry metrics such as average revenue per user (ARPU). This approach does not attempt to relate the size of the compensation received with the detriment and loss in welfare suffered by the consumer by the actions which necessitated the payment of compensation and estimates of the value of inconvenience and lost time associated with different migration options is beyond the scope of the present engagement.

Ofcom have presented estimates of ARPU for various types of communications providers

<table>
<thead>
<tr>
<th>Category</th>
<th>Annual ARPU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed line</td>
<td>£294</td>
</tr>
<tr>
<td>Mobile service</td>
<td>£210</td>
</tr>
<tr>
<td>Broadband</td>
<td>£192</td>
</tr>
<tr>
<td>Average</td>
<td>£232</td>
</tr>
</tbody>
</table>

Source: Ofcom

Applying a comparable level of compensation as a percentage of ARPU to that used in the UK electricity and gas markets results in a value of compensation (rounding up to nearest pound amount) of £12 for fixed line, £8 for mobile service, and £8 for broadband. These figures are therefore approximately half of monthly ARPU for providers (4% x 12). Two questions must be addressed at this point:

---

18 Ofcom “The International Communications Market 2006”

19 The voluntary compensation scheme operating in the UK electricity and gas sectors delivers £20 to customers whose transfers have been erroneously executed and where the notification letter confirming restoration is not issued within a defined time period. Indicative estimates of average revenue per user (ARPU) in electricity and gas supply is approximately £500 per user. Proceeding with an ARPU of £500 for the present purposes, this implies that the level of compensation is 4% of ARPU. In response to a query on this matter, Ofgem confirmed that these compensation levels were not related to particular supplier financial characteristics (such as ARPU) were set at “similar levels to standards of performance compensation payments for example £20 for a missed appointment and £20 for not sending out compensation in time”. Note also that profit margins are higher in the electricity and gas sectors than in the communications market.
• Is this a sufficient disincentive for providers to desist from contraventions; and
• Is the level of compensation sufficient to compensate customers for actual financial loss and more general inconveniences?

The first question relates to the extent to which a deprivation of half a month’s ARPU or a full month’s ARPU would affect provider behaviour, and the extent to which this would give providers incentives to avoid future contraventions. Given the relatively low margins in communications, such compensation levels appear to constitute appropriate penalties. This raises the related issue as to the appropriate amount of fines to be levied on bundled products, and whether each product within the bundle should be assessed separately. In this case, it appears reasonable to levy the compensation on the basis of the ARPU of the product bundle as a whole, rather than attempting the difficult task of allocating costs and detriment amongst the bundle of products.

The use of ARPU as a process for setting compensation is clearly open to critique. However, some basis for the level of compensation is required and there is a rationale for linking compensation to the gain received by the GP from the customer who was incorrectly treated. On this basis, ARPU for one year seems an appropriate place from which to base a discussion of compensation levels. The alternative to the use of ARPU would be estimation of the level of customer inconvenience and detriment arising from unsatisfactory migrations. Such work is beyond the terms of reference for this study, and would require considerable primary market research to understand both the level of detriment caused and compensation / penalty that may be appropriate. As such, and given the limited evidence available on this issue, further investigation and consultation would be required on the basis of compensation to customers.

An alternative approach to direct compensation, whether based on ARPU or some other measure, is the use of financial penalties. Whilst such penalties do not have a direct link to the particular failure, they can nevertheless be effective. In particular, we note that the threat of financial penalties to be invoked as result of non compliance with General Condition 22 over the last six months has resulted in the number of complaints received by Ofcom about broadband migration issues falling by about half, from around 480 complaints per week at the start of March to around 250 complaints per week at the start of August 20. Whilst we favour a compensation framework, as it directly penalises each individual failure, further consultation on this issue is clearly required. There is, however, clear potential to combine direct compensation with a General Condition 22 financial penalty if behaviours do not meet the required level.

Compensation to LPs for financial loss may be thought of as an alternative to the use of General Condition 22 financial penalties, i.e. analogous to rights of private action. However, whilst this is theoretically attractive, we have concerns as to the cost of the administrative overhead in terms of arbitrating these cases relative to the benefits that may be received over and above that achieved from the threat of financial penalties under the provisions of General Condition 22 should be sufficient deterrent alongside consumer compensation payments.

4.5.3 Tiering

The introduction of a tiered compliance system is intended to provide a strong incentive to providers to avoid slamming, other forms of mis-selling, and to encourage the timely and efficient execution of legitimate customer transfers. Our motivation for considering the introduction of some form of tiered provision is provided by the example of France. The French model allows for two migrations processes, where near immediate provisioning may be effected where the provider’s levels of compliance are high; a more stringent process is applied to providers which have an unsatisfactory compliance record.

20 www.ofcom.org.uk/bulletins/comp_bull_index/comp_bull_ocases/open_all/cw_946/ - 2007-08-13
A ‘tiering’ option might supplement the compensation framework in monitoring unauthorised migrations and consequently rating Service Providers on their compliance. The 3rd Party function outlined in the compensation governance structure would have the additional responsibility and remit of monitoring and recording the number of complaints received regarding each service provider. The statistics related to number of complaints received would be monitored and published on a quarterly basis in line with Ofcom’s publication cycle. The statistics would be reviewed against an agreed tiering structure in terms of levels of compliance. Initially all providers would be given ‘gold status’.

The CP status would be reviewed on a quarterly basis to benchmark their compliance and depending on the thresholds; providers would be promoted or relegated a tier as appropriate. Where a Provider was not deemed to be compliant; having transferring customers without their consent, then the Provider may be relegated to a lower ‘tier’. This would result in the loss of certain advantages associated with the migration process. The main outcome of this mechanism being; providers would be incentivised to remain in the ‘top’ tier.

The penalty associated with a lower tier would be that the communication provider would be required to pay the customer a higher level of compensation depending on which tier they resided in. Internationally, the penalty relates to the time before which the communications provider can process the customers order. Although this would impact the service provider’s working capital and therefore be a strong incentive, it would also be disadvantageous to the customer. Based on current ARPUs in the industry we have concluded that a higher level of customer compensation would be an equally effective compliance incentive.

It is our conclusion that this feature would not be appropriate for implementation in the UK as ultimately it disadvantages the customer, and represents a barrier to switching since it has the potential to increase the migration timeframe.

4.5.4 Collation and publication of comparable performance indicators for provider performance

Comparable or key performance indicators (CPI or KPI) are widely used regulatory tools which have are a reasonably simple, inexpensive and effective means of understanding and controlling market developments. For example, Oftel launched an initiative in 1993 to address the absence of information on the (comparative) quality performance of different telecommunications operators. The scheme operated on a voluntary basis until Ofcom mandated the provision of the information to end users of certain fixed line products and services.

The publication and availability of CPIs on migration performance would encourage compliance generally as well as in the context of the proposed tiered mechanism discussed above. It is likely to be helpful to obtain information on the numbers of complaints, the number of identified slams and mis-sells, and the average time taken by an operator to complete a transfer. Ofcom have commissioned a separate piece of work on data capture and the measurement of mis-selling in the communications market.

It is our conclusion that this add on to the compensation framework would be an important feature of any change in the migrations process as it would mean that KPIs for the migration process would need to be identified and agreed. Consequently CPs would have a regulatory obligation to measure them meaning the incremental benefits of any process change can be accurately measured and quantified. Again this highlights one of the key questions that needs to be considered when...

assessing the benefits of a single process; that without a centralised solution it is very difficult for the regulator to consistently and accurately measure performance and compliance across the industry.

4.5.5 What should be compensated?

A key issue related to the construction of a system of compensation relates to the coverage and criteria of the scheme. The compensation system must address specific areas of detriment; too wide a scope will give rise to costly disputes and will fail to provide redress for harm.

Slamming and mis-selling are grounds for compensation in international jurisdictions (including the United States), are sources of significant customer detriment and are readily identifiable and definable. Failure to issue notification of transfer could also qualify for compensation, with the burden of proof resting with the provider.

Care would be required to construct similarly specific obligations for other areas of harm such as delay in processing the request, or if there was some grounds for believing that the validation and verification procedures undertaken by a provider did not reflect “best efforts”, which would require an evidenced and documented internal migrations procedure to be created and respected by providers.

Figure 8 Potential compensation criteria

<table>
<thead>
<tr>
<th>Suggested compensation criteria</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mis-selling</td>
<td>This might include various forms of mis-selling from slamming through to not to making agreed efforts to validate the customer, to failing to inform the customer that they should check with their LP regarding any implications of their decision to switch on their existing products and services.</td>
</tr>
<tr>
<td>Failure to provide proper notification</td>
<td>This might cover the responsibilities on the GP and LP to send welcome and exist communications in a variety of forms outlining to the customer the detail of their transfer. It is envisaged that this information would be pre agreed by industry.</td>
</tr>
<tr>
<td>LP validation rejection rates</td>
<td>This penalty is particularly relevant in the context of a centralised process where it would be possible to report on the process performance. It is proposed that there would be an agreed set of key performance indicators to ensure the effective functioning of this process according to pre-determined customer experience criteria. If these reports indicated that some LPs were failing to validate customer information provided then immediate pre-agreed penalties could be due.</td>
</tr>
<tr>
<td>Failure to complete migration within agreed timeframe</td>
<td>Possible grounds for compensation could be that the migration failed to complete within the agreed time frame i.e. the time frame that the GP quoted to the customer at the point of sale.</td>
</tr>
</tbody>
</table>

It may be interesting to note that this mechanism could be used as a lever by which to drive further enhancements to the customer switching process e.g. incentivising CPs to invest in addressing other areas of potential process failure such as bulk migrations and TAGs on the line.
5 Costs, benefits and other considerations

This section identifies the customer benefits associated with each option, as well as presenting an estimate of the likely costs. Based on this analysis we present a ranking of the short listed options.

5.1 Approach to assessing costs and benefits created

Before presenting our analysis of the benefits and costs associated with each of the options, we briefly present the methodology used in considering these issues.

5.1.1 Benefits created

Our analysis of the benefits provided by option is primarily based upon a qualitative assessment due to the nature of the benefit provided to consumers, although quantitative information is considered where available. The benefits provided from the various single transferable options can be considered using the following structure.

Figure 9: Key factors driving benefit

Many parts of the customer experience of migration are impacted upon in various ways by different features of the transfer process. As such, it is possible to distinguish between benefits which are primarily concerned with preventing harm (such as rendering some degree of protection from slamming and mis-selling) and benefits which are primarily concerned with enhancing the overall customer experience (such as improving the timeliness and convenience of the overall process). However, in keeping with the focus of the sections above, customer convenience (the customer experience) remains central to all considerations. In addition, the customer experiences will also be impacted by the overall efficiency of the migration process. For example, customers will suffer if any proposed migration process causes discrimination against particular providers, or if the process is not supportive of competition in the market.

Building upon this, the following figure shows the key elements driving customer experience.
In the analysis below validation and verification are considered in terms of how well each of the migration option ensures that the migration process is capable of effecting basic aspects of the transfer such as customer identification. Mechanisms associated with greater validation and verification:

- Contribute towards ensuring that ensuring the customer is protected from mis-selling and slamming and well-informed regarding the circumstances of the contract which is being migrated; and
- Ensure that many aspects of the transfer of bundles are supported and protected.

Migration mechanisms also need to be efficient and fair, in that they will not ultimately impact consumers through reduced investment and investment. In particular, it is important to ensure that the customer experience is not adversely impacted by indirect developments such as: avoidable barriers to entry, discrimination towards certain providers; or uneconomic cost recovery.

**5.1.2 Cost modelling methodology and limitations**

This report provides cost estimates for the introduction and operation of each of the four migration options. However, we note that there are a high number of variables which impact these costs, and a large number of key assumptions must be made in order to dimension the systems estimate the costs. As a result there is significant variation in the range of the cost estimates:

- The volumes of use, switching and complaints are key variables;
- The migration options themselves are at an early feasibility stage and not finalised. The process, operating model and systems implications are therefore not fully defined and any changes could have a significant impact upon the costs of an option;
- Unlike the mobile sector (and to an extent cable), fixed line and ISP providers have evolved at different paces, in different market conditions, with different generations of technology, to serve different generations of user demands. As a consequence, despite the existence of standard industry models such as eTOM, the operating models differ greatly between
competing CPs. The manner in which processes are managed and supported within these businesses differ greatly. There are different operating models employing different processes supported by different systems and using different underlying data. Within this context it is virtually impossible to estimate accurate costs since they will be subject to significant variation; and

- The nature of IT Development programmes is such that there are numerous methodologies for specifying and designing IT systems. They mostly require a business need to be specified (i.e. the requirements for a single migrations process), end to end processes and underlying user cases to be defined (CP specific), data architecture to be defined, and the systems architecture to be designed (infrastructure, data, workflow, application). The solution selected will be driven by a number of factors e.g. the requirement, the state of current systems, the availability of IT skills etc. While there is a general move towards using systems to automate processes in order to take out headcount, this is notoriously difficult to achieve. An example of this is the fully automated flow through provisioning architectures that many Telecommunications providers have sought to achieve at significant cost and yet continue to struggle with manual exception handling issues. Consequently requirements are as likely to be met with a 'people hub' as an IT middleware hub which means cost estimates can be indicative only.

There are some costs which are common to all the mechanisms that cannot be quantified without specifying the detail of the requirement of the proposed options and (in addition to the above assumptions) result in our cost estimates being indicative only. Key CAPEX items that would require greater clarity for detailed costing work include:

- Solution feasibility/build/test/design;
- CP system development;
- Process re-engineering/development and subsequent training;
- Project management/implementation; and
- Interfaces to data sources.

The most significant OPEX relate to transactional costs where any 3rd party is involved in the process and the resource costs around the governance framework required to monitor and manage any centralised process.

We would also note that some CPs will be disproportionately impacted by any change in the migration approach, as each CP has a different investment profile.

Due to the cost modelling limitations outlined we have sought to construct cost ranges for each of the migration option with the objective of demonstrating the scale of the investment required. Having scoped what the high level process might look like our methodology involved identifying the key areas of process change, understanding where these were system, process or people related and then attempting to put a monetary value on the changes required. Having identified the top line cost drivers we consulted with industry and used experience of having implemented similar scale projects to estimate the costs. The subsequent estimates are subject to significant variation for these reasons. The remainder of this section provides more detail on the broad assumptions made.

**Key cost driver assumptions**

It is not possible to obtain a meaningful aggregate figure of the total number of UK communications consumers as different communications products are not substitutes for each other and the service provided are heterogeneous. The most recent communications market report of Ofcom on the number of separate connections for different products suggests that mobile has 66.5 million
connections in 2005, fixed has 34 million connections, and all internet connections were 16.3 million, of which 10 million were broadband\(^ {22}\). The percentage of customers who switch providers is more difficult to obtain. However, an Ofcom study\(^ {23}\) has examined certain types of switching behaviour and according to this study and the survey results contained therein:

- 34% of fixed line home consumers have switched in last four years. 11% predict that they are certain or very likely to look for an alternative supplier;
- 36% of mobile phone consumers have switched in past 4 years. 8% are certain or very likely to look for an alternative network in the next 12 months; and
- 28% of consumers have changed ISP in past 4 years. 26% of customers are certain or very likely to keep a look out for new deals in the next 12 months.

In the absence of firm data estimates of switching must be obtained by applying some simplifying assumptions to this data. We have chosen to simply divide the number of customers who have switched in the last four years by four in order to obtain an annual figure\(^ {24}\). This implies 8.5% of all home customers switch fixed line, 9% switch mobile, and 7% switch ISP on an annual basis. It is interesting to note that these figures are actually below the stated desire of customers to switch for each product, with the exception of mobiles\(^ {25}\). Applying this to the data on connections obtained from the Ofcom Communications Market 2006 report gives rise to the following estimates of volume:

- Annual switching of 8.5% in the fixed line market implies 2.9 million switching connections;
- Annual switching rates of 9% in the mobile market implies 5.9 million switches; and
- An annual switching rate of 7% in the internet market implies 1.1 million switches.

We understand that the OCC receives 4,800 annual complaints to do with slamming and mis-selling, and the same document implies 320,000 annual Cancel Other complaints. This suggests that a third party scheme would have to manage well over 300,000 annual complaints in the absence of any effect from compliance and enforcement. Clearly, this figure may rise with a more transparent system, but fall with a more effective regulatory structure.

It seems clear that any system must be capable of handling at least 300,000 complaints initially. We have examined costs based on a series of different complaint level scenarios: high complaints (600,000); intermediate complaints (300,000); moderate complaints (100,000) and low complaints (20,000). While these ranges are inevitably somewhat arbitrary, they nevertheless encompass a reasonably comprehensive range of outcomes.

Finally, it is important to emphasise that our cost model gives no consideration to the consumer contact options required to effectively facilitate the customer migration facilitator. Our assumption is that the costs identified will be consistent regardless of the consumer contact option. We recognise that there may be some less tangible costs associated with different consumer contact options.


\(^{24}\) There are two complications with this approach, the first being that it is likely to overstate the amount of annual switching if people have switched just once during the four period considered by the survey, whereas it will understate the amount of annual switching if people have switched more frequently than once per year over this period. The former case seems more plausible and likely that than the latter, which suggests dividing the four year switching figure by a factor of four will overstate annual switching.

\(^{25}\) This suggests that the simple average of actual switching behaviour in the past four years may actually be a sensible proxy for annual switching behaviour.
5.2 Single Code

5.2.1 Incremental customer benefits

The single code appears likely to provide a significant incremental customer improvement, relative to existing practices, see the figure below. In particular, the convenience of a single code in terms of simplicity, timeliness, customer empowerment and a unified process are important characteristics of this mechanism. However, the likely disruption to existing services relative to current practices due to the number of products and services that might be associated with the customer’s code and the level of interaction required to maintain the accuracy of this would be unprecedented in the communications industry. For this reason we have concluded the solution to be high risk not only to Industry but also for the ultimate customer experience.

Figure 11: Customer convenience and single code

<table>
<thead>
<tr>
<th>Benefit component</th>
<th>Incremental impact</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>No undue or artificial barriers to switching</td>
<td>Positive</td>
<td>By reducing the number of touch points to the minimum number possible, it is likely there will be no customer inertia arising specifically from the inconvenience of managing a number of touch points and provider contacts. This is likely to be particularly important for customers who subscribe to bundles.</td>
</tr>
<tr>
<td>Timeliness</td>
<td>Positive</td>
<td>The timeliness of the migration from the perspective of the consumer will be similar to existing processes, but there will be a small time saving as a consequence of managing a single touch point.</td>
</tr>
<tr>
<td>Simplicity</td>
<td>Negative</td>
<td>Customers are only required to manage a single touch point and therefore the scheme has the advantage of significant simplicity from the perspective of the customer. However the level of back office complexity to design and manage this process would be high and consequently could pose significant risk to the customer experience. For this reason we do not consider the process to score highly in terms of simplicity.</td>
</tr>
<tr>
<td>Minimum disruption to existing services</td>
<td>Negative</td>
<td>We expect the disruption to existing services of a single code to be very significant. The data management exercise required to associate all of a customers products and services with a single code would be industry wide and extensive. Consequently, we would expect any such initiative to be a multi year project.</td>
</tr>
<tr>
<td>Single process</td>
<td>Positive</td>
<td>The single code mechanism is a single process by construction.</td>
</tr>
<tr>
<td>Minimum number of touch points</td>
<td>Positive</td>
<td>The number of touch points is minimised by construction.</td>
</tr>
<tr>
<td>Seamless transfer</td>
<td>Positive but significant transfer issues created</td>
<td>The transfer process for individual products and services will appear seamless to the customer across all products and providers, and therefore delivers an incremental improvement over existing practices. However, the complexity of the process may result in significant transitional issues that mean the overall customer experience is not seamless in terms of service provision.</td>
</tr>
</tbody>
</table>
In summary, the single code provides significant incremental consumer benefits.

5.2.2 Validation and verification

This approach would perform well in terms of validation and verification, with the GP being able to validate the account holder using the customer’s code. However, verifying which products and service customers want to migrate is more complex. Clearly this option would offer little protection unless the customer was issued a PIN for each product and service associated with a single code. As such, there is a clear danger that this would be unmanageable as there could be multiple ‘parent-child’ relationships at each premise in terms of the single code representing the consumer and PINs associated with the multiple communications products and services related to it. There are clear data management complexities with such a structure, which would be difficult to communicate to customers in a clearly understood manner.

5.2.3 Process efficiency

This section briefly discusses the process efficiency considerations associated with a single code process. We anticipate that this process will be difficult to automate successfully, due to the complexity of the inter-relationships between the various products which would be covered by the scheme, as well as the number of services associated with a single line and possibility that several parties may have contracted for services on this line.

We also have concerns that this process may give rise to discrimination amongst providers, as the resources required in establishing, implementing and operating the processes necessary to support a single code process are anticipated to be substantial. There may therefore be economies of scale in operating a single code mechanism which may deter new entry and give rise to discrimination amongst large incumbents against smaller incumbents. This is likely to be particularly the case in the context of bundled offerings, where the technical demands on a single code process are especially demanding.

Finally, the level of investment by CPs (see below) must raise questions as to the extent to which it would limit alternative investments that may be made and hence limit the development of the sector.

5.2.4 Costs

Adoption of the single code option is likely to lead to a considerable set up cost, estimated to be in the region of £400-500m, with ongoing costs estimated to be in the region of £1-2m per annum. The following figure identifies the top level drivers of these estimates.

One of the key cost drivers associated with this option relate to the data cleansing and reconciliation programme which would be required to facilitate the creation of this database. The range in costs relates to the potential variance in cost in each of the key cost lines/items identified in terms of solution complexity, supplier costs and estimated timeframes.

Figure 12: Cost estimates for the single code option

<table>
<thead>
<tr>
<th>Cost Description</th>
<th>Year 1</th>
<th>Ongoing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ofcom and Industry programme management resource</td>
<td>£2,000,000</td>
<td>£1,000,000</td>
</tr>
<tr>
<td>Feasibility, design, test, implementation consultant resource</td>
<td>£150,000,000</td>
<td>-</td>
</tr>
<tr>
<td>Hardware and software procurement</td>
<td>£2,500,000</td>
<td>£500,000</td>
</tr>
<tr>
<td>CP In house interface build £2m capex charge multiplied by 100 CPs</td>
<td>£200,000,000</td>
<td>-</td>
</tr>
<tr>
<td>CP 3rd party hosted solution £250k capex charge multiplied by 100 CPs</td>
<td>£50,000,000</td>
<td>-</td>
</tr>
<tr>
<td>Estimated Cost Range</td>
<td>£400-500m</td>
<td>£1-2m</td>
</tr>
</tbody>
</table>
We also note that it is likely that the majority of these costs would be incremental and therefore prohibitive for a number of CPs.

### 5.3 Third Party centralised data hub

#### 5.3.1 Incremental customer benefits

There would be significant incremental customer improvement, relative to existing practices, arising from the introduction of a third party process. In particular, the proposed third party mechanism involves a single, common step for all products with few touch points or other areas of complexity or possible confusion.

**Figure 13: Customer convenience and third party data hub**

<table>
<thead>
<tr>
<th>Benefit component</th>
<th>Incremental impact</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>No undue or artificial barriers to switching</td>
<td>Positive</td>
<td>By reducing the number of touch points to the minimum number possible, it is likely there will be no customer inertia arising specifically from the inconvenience of managing a number of touch points and provider contacts. This is likely to be particularly important for customers who subscribe to bundles. Moreover, the switching process and effort required is the same across products and providers.</td>
</tr>
<tr>
<td>Timeliness</td>
<td>Positive</td>
<td>The timeliness of the migration from the perspective of the consumer will be similar to existing processes, but there will be a small time saving as a consequence of managing a single touch point.</td>
</tr>
<tr>
<td>Simplicity</td>
<td>Positive</td>
<td>Customers are only required to manage a single touch point and therefore the scheme has the advantage of significant simplicity from the perspective of the customer. The process is also common across products and providers.</td>
</tr>
<tr>
<td>Minimum disruption to existing services</td>
<td>Negative</td>
<td>We would expect the disruption to existing services of a third party process to be on an unprecedented scale since every communications provider would need to interface to this system. In addition the concept raises some questions as to the role that would be occupied by Openreach and the level of investment that has already been committed to its Equivalence Management Platform and this is a key consideration.</td>
</tr>
<tr>
<td>Single process</td>
<td>Positive</td>
<td>The third party mechanism is a single process by construction.</td>
</tr>
<tr>
<td>Minimum number of touch points</td>
<td>Positive</td>
<td>The number of touch points is minimised by construction.</td>
</tr>
</tbody>
</table>

In summary, the third party data hub appears to provide the highest level of incremental consumer benefits of the options in many ways, although the potential disruption of existing services would be unprecedented and extremely high risk. The scale of investment required and the potential risk to the customer service appears to outweigh the potential benefits. Experience of projects of this scale in other industries and sectors teaches us that re-engineering on this scale must have clear, robust and defensible benefits which address specific and measurable issues of detriment. It is our conclusion that whilst exhibiting significant customer benefit this process option does not stand up to this latter test.
5.3.2 Validation and verification

This option performs would perform extremely well in terms of validation and verification as a result of the industry wide validation rules that would be configured to enable the 3rd party data hub to execute the transfer.

5.3.3 Process efficiency

A key question for the introduction of the 3rd party option is that of fairness and proportionate burden of particular CPs. Given the level of anticipated costs (see below), it appears a question of policy whether Ofcom wish to ensure that smaller CPs do not bear a disproportionate cost of the change in migration model.

In addition it would need to consider the amount that industry have already invested in systems and processes to improve customer experience and deliver true equivalence of access. For example, Openreach has already undertaken substantial EMP spending and is committed to further such investment whilst other CPs have smaller but significant commitments. Whilst Ofcom should not consider the profile of any one CP when setting policy, it is clearly appropriate to consider the level of sunken investment by the industry when evaluating this option. As with the single code option, concerns must exist as to whether this level of investment would create some cap on industry investment and innovation in other areas.

Finally, concern must exist as to whether the complexity of relationships between products, and the number of services and contracted parties on a single line will increase the complexity and possibility of failure of the third party process. It is of interest that other comparable examples of this type of migrations system are predominantly from utilities industries such as electricity and water, were centralised processes arose as a natural outgrowth of deregulation of regional and local monopolies with a single product.

5.3.4 Costs

Adoption of the 3rd party option is likely to lead to a considerable set up cost, estimated to be in the region of £500-600m, with ongoing costs estimated to be in the region of £2-3m per annum. The majority of this cost to be incremental, suggesting the need for considerable CP investment to support this option. The following figure and subsequent discussion identifies the key drivers of these estimates.

Again the most significant cost drivers for this option relate to the data management and reconciliation exercise which would be required as a precursor for this project in order to get the data into a single repository and format that could be utilised by the Industry. The variance in costs illustrates the risk that IT projects of this scale have in terms of unforeseen costs and potential to significantly overrun.

**Figure 14: Customer convenience and third party data hub**

<table>
<thead>
<tr>
<th>Cost Description</th>
<th>Year 1</th>
<th>Ongoing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ofcom and Industry programme management resource</td>
<td>£2,000,000</td>
<td>£1,500,000</td>
</tr>
<tr>
<td>Feasibility, design, test, implementation resource</td>
<td>£150,000,000</td>
<td>-</td>
</tr>
<tr>
<td>Hardware and software procurement</td>
<td>£5,000,000</td>
<td>£1,000,000</td>
</tr>
<tr>
<td>CP interface development build</td>
<td>£400,000,000</td>
<td>-</td>
</tr>
<tr>
<td>Estimated Cost Range</td>
<td>£500-600m</td>
<td>£2-3m</td>
</tr>
</tbody>
</table>
In addition to the above, we would suggest that Ofcom consider the following issues in relation to the 3rd party option:

- **Data management:** It seems likely that a significant cost may exist in relation to data management that we have not detailed above. The 3rd party option seems likely to involve effectively freezing the migration process for a period of time. All CPs would need to "on ramp" at the same time, and hence no migrations would be allowed until everyone was on ramped. We have been unable to quantify this cost but it appears likely to be significant as it could effectively stop any order transactions for any number of weeks. There are also likely to be major cost implications for BT Openreach as it appears that this solution would significantly impact their business model;

- **Data cleansing:** An industry wide data cleansing initiative would also be required to enable customer’s products and services to be linked to a unique identifier. A robust data cleansing program is an essential pre requisite to any centralised database initiative and there must be a sound basis for the future recognition and assembly of customer asset data. Whilst it could be argued this is required by the industry, this is a significant task and should not be underestimated;

- **Ofcom input:** In constructing this option we have assumed that dedicated and ongoing resource would be provided by Ofcom, as well as industry. The governance structure will be fundamental to allowing all parties to have equivalent input into the initiative and to ensure it is transparent. We would expect this option to require dedicated Project Directorship supported by work stream leads and for governance to be provided through an industry steering committee;

- **Project duration:** The cost estimates presented above are based on a one year project duration. Whilst this is theoretically achievable, our experience of over runs on similar large implementation suggests that this may become a multi year project and hence this cost estimate must be regarded as extremely indicative only and costs would be determined by the scale of the project over run. As such, we have focussed our analysis on a one year project duration focussing on feasibility and design investigations; and

- **Data hub:** The costs presented above do not account for any changes or further development to the data hub that would be required due to new products services or improvements to the process. Any change in this regard would lead to a further increase in costs.

### 5.4 Inter CP communications process

#### 5.4.1 Incremental customer benefits

The ICP process creates significant incremental consumer benefits relative to the current situation.
Figure 15: Customer convenience and the ICP process

<table>
<thead>
<tr>
<th>Benefit component</th>
<th>Incremental impact</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>No undue or artificial barriers to switching</td>
<td>Positive</td>
<td>An extension of the MAC process in its current form has as many touch points as products/services subscribed. However having a single point of contact for the process; the GP, makes the process more convenient for customers. This is likely to be particularly important for customers who subscribe to bundles. Removing the LP as the initiator of the process also means there are less likely to be artificial barrier to switching related to customer inertia.</td>
</tr>
<tr>
<td>Timeliness</td>
<td>Positive</td>
<td>The timeliness of the migration from the perspective of the consumer will be similar to existing processes, but since customers will only have one point of contact then this is likely to reduce the overall timeframe. The timeframe could be manipulated to be shorter if this was identified as a desired outcome by designing the system to facilitate this.</td>
</tr>
<tr>
<td>Simplicity</td>
<td>Positive</td>
<td>Customers are required only to make a single contact. When compared to the current MAC or PAC process and in the context of bundles where there is for example the possibility for transposition errors in the transfer of the authorisation code between the LP and the GP then a simplified process is of greater benefit to the customer.</td>
</tr>
<tr>
<td>Minimum disruption to existing services</td>
<td>Positive</td>
<td>We expect there to be some disruption to existing services as a result of the proposed process but we would expect this to be seamless to the customer. The main disruption relates to the new migration processes that will be required at the point of sale, for example having to record the agreed information in the ICP portal, and for the LP to interface to this to provide an automated response. It is likely that some changes will be required to billing and provisioning systems as a result. However the level of disruption is dependent on the sophistication of the final communications solution agreed on. In any case the disruption is likely to be higher for narrowband and cable providers who have no legacy of an authorisation code/validation process.</td>
</tr>
<tr>
<td>Single process</td>
<td>Positive</td>
<td>The solution would result in a single process across industry and so it is anticipated that there would be incremental improvements over the existing processes.</td>
</tr>
<tr>
<td>Minimum number of touch points</td>
<td>Positive</td>
<td>There will be only one point of contact - the GP - in order to initiate the migration. It is also important to note that it is envisaged that in taking on this role the GP would be the single point of the contact and ownership for any migration process issues. The current process usually means that this is a grey area with the customer being directed between the LP and GP with no clear remit of responsibility for resolution.</td>
</tr>
<tr>
<td>Seamless transfer</td>
<td>Positive</td>
<td>The transfer process for individual products and services will appear seamless to the customer, and it is expected there will be incremental customer benefit as a result.</td>
</tr>
</tbody>
</table>
5.4.2 Process efficiency

This section briefly discusses the process efficiency considerations associated with an ICP communication mechanism. We don’t envisage any issues with recovery of due funds or assets by relevant parties. The proposed process is also automated.

This leaves two key process efficiency considerations to be reviewed: whether the process gives rise to discrimination amongst providers and whether it supports competition in the wholesale and retail markets.

Competition has developed in those markets which use a form of the existing authorisation code process; competition has developed and new entry has occurred in the broadband market which suggests at a minimum that an extension of a validation based process is not inimical to these developments. However making the process LP led particularly in the context of the ‘stickiness’ of the existing MAC process for bundles migrations may reduce the possibility of the process discriminating against new entrants in the favour of incumbents.

5.4.3 Validation and verification

The ICP process performs well in terms of validation and verification. One of the main assumptions of this process is that there is an industry agreed set of data to validate the customer and minimise the risk of unauthorised transfers. The concept of “best endeavours” to verify the customer seems to perform well internationally, specifically in the Danish and Australian processes.

It could be argued that the process is less robust when it comes to validation of the products or services the customer intends to migrate, particularly in the context of bundle migrations. Whilst recognising this risk we have concluded that this is an acceptable trade off for the positive customer experience the process offers. Furthermore, combining this option with the compensation framework (see below) would further mitigate this issue.

5.4.4 Costs

Adoption of the Inter CP process is likely to lead to a set up cost in the region of £100-200m, with ongoing costs estimated to be in the region of £2-3m per annum. The following figure identifies the key drivers of these estimates.

**Figure 16: Cost estimates for the 3rd party centralised switching mechanism**

<table>
<thead>
<tr>
<th>Cost Description</th>
<th>Year 1</th>
<th>Ongoing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ofcom and Industry programme management resource</td>
<td>£1,000,000</td>
<td>£500,000</td>
</tr>
<tr>
<td>Feasibility, design, test, implementation, build costs</td>
<td>£50,000,000-£100,000,000</td>
<td>£1,000,000</td>
</tr>
<tr>
<td>CP interface development build</td>
<td>£50,000,000-£100,000,000</td>
<td>£1,000,000</td>
</tr>
<tr>
<td>Estimated Cost Range</td>
<td>£100-200m</td>
<td>£2-3m</td>
</tr>
</tbody>
</table>

In relation to the above estimates we would also note that:

- The most significant costs would be around designing and creating access to the ICP system. System requirements in terms of the scope of functionality required to validate the industry agreed validation criteria would be the main cost variable;
- The key costs for CPs would be the 3rd party funding of this development and the internal development they would need to complete to interface to it. The costs would particularly affect narrowband providers who currently use the letter process only and have no
experience of using a proactive validation process; their processes are based on management by exception;

- It should be noted that additional cost would be incurred by Openreach and the CP community utilising the MAC process since it is assumed that the MAC in its current form, would effectively become redundant and replaced by some other form of validation code provided by the ICP process; and

- It is suggested that any proposed changes should be factored into the requirements gathering process for the changes to the mobile number portability process as soon as possible to ensure the work is factored into the current design proposals, thereby reducing costs at a later stage.

We would also note that the cable industry might still participate in this process even though their transfers are essentially new provides with potentially a number transfer. Having successfully validated the customer, the GP would be authorised to coordinate the migration on behalf of the customer. This would reduce the high number of customer touch points that characterise the current cable acquisition process as well as the significant lead time.

### 5.5 Multi MAC

#### 5.5.1 Incremental customer benefits

Although there is a positive precedent of the MAC process in terms of its current attributes in facilitating broadband migrations; there are a number a number of disadvantages relative to existing processes that suggest that this option cannot be considered for implementation across the industry.

**Figure 17: Incremental benefits of the Multi MAC option**

<table>
<thead>
<tr>
<th>Benefit component</th>
<th>Incremental impact</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>No undue or artificial barriers to switching</td>
<td>Negative</td>
<td>The potentially high number of touch points means there may be significant customer inertia arising specifically from the inconvenience of managing a number of touch points and provider contacts. This is likely to be particularly important for customers who subscribe to bundles.</td>
</tr>
<tr>
<td>Timeliness</td>
<td>Negative</td>
<td>The timeliness of the migration from the perspective of the consumer will be similar to existing processes, but there may be an increase in the time taken to complete the migration as a consequence of managing multiple touch points.</td>
</tr>
<tr>
<td>Simplicity</td>
<td>Negative</td>
<td>Customers are only required to manage multiple touch points and therefore the scheme has the risk of being complex from the perspective of the customer. There is a high risk for transposition errors as a result of the customer managing a number of codes. For this reason we do not consider the process to score highly in terms of simplicity.</td>
</tr>
<tr>
<td>Minimum disruption to existing services</td>
<td>Negative</td>
<td>We expect the disruption to existing services of a Multi MAC option to be significant since the voice and cable industry, as well as some LLU products have no precedent of this.</td>
</tr>
<tr>
<td>Single process</td>
<td>Positive</td>
<td>The multi MAC option does provide a single and consistent process across all products and services.</td>
</tr>
<tr>
<td>Minimum number of touch points</td>
<td>Negative</td>
<td>There are a high number of customer touch points – the highest of all the options considered.</td>
</tr>
</tbody>
</table>
Seamless transfer

Negative

The transfer process for individual products and services will appear seamless to the customer once they have provided all the relevant information. The incremental improvement over existing practices is regarded as neutral since it is a logical extension of the existing MAC and PAC process. However, the complexity of the process from the customer perspective may result in significant transitional issues that mean the overall customer experience is not seamless in terms of level of customer involvement required.

In summary, the Multi Mac process provides limited incremental customer benefits relative to the other processes discussed above.

### 5.5.2 Process efficiency

A key question for the introduction of the Multi MAC option is that of fairness and proportionate burden of particular CPs. Given the level of anticipated costs (see below), it appears a question of policy whether Ofcom wish to ensure that smaller CPs and narrowband only providers do not bear a disproportionate cost of the change in migration processes.

In addition it would need to consider who would be responsible for generating and managing the MAC process across Industry since this role is currently performed by Openreach. Consequently the amount that industry have already invested in systems and processes to improve the customer experience of the current MAC and PAC processes would need to be considered. Whilst Ofcom should not consider the profile of any one CP when setting policy, it is clearly appropriate to consider the level of sunken investment by the industry when evaluating this option. As with the single code and 3rd Party Data hub options, concerns must exist as to whether this level of investment would create some cap on industry investment and innovation in other areas.

Finally, there is a risk that the complexity of relationships between products, and the number of services and contracted parties on a single line will increase the complexity and possibility of failure of the Multi MAC option.

### 5.5.3 Validation and Verification

The Multi MAC process is effective in providing a high level of customer validation and verification across industry products and services. By having a consistent form of validation in terms of an authorisation code then the process is consistent across all communications products from a consumer perspective. It provides validation that the customer is who they say they are and wants to switch, and in addition verifies which products and services the customer wants to switch.

The MAC process is already fulfilling this role successfully in the broadband industry. However currently it is not fully functional for MPF products which is challenging for the industry and confusing to the consumer who has no awareness of what infrastructure the CP is using to provide their access. Consequently this process would need to be fully extended to MPF products to provide a satisfactory level of customer validation and increasingly verification. As the rise in full MPF products has demonstrated, it is critical that the customer is able to verify which element of their service they wish to transfer. Our understanding is that there have been a number of cases where the customer only intended to transfer their Broadband service but this has resulted in the transfer, not only of this service but also their line rental and calls.

The importance of and requirement for validation and verification is even more important to consider in the narrowband industry which still relies on the AOT (Advice of Transfer) letters process. As a result of this process, the GP has no requirement to and no means by which to verify that the customer is the account holder and which products and services they want to transfer at the point of sale. The extension of a MAC process to fixed line voice products would provide the validation...
required in terms of customer authorisation as well as facilitating the process by speeding up the migration lead time.

In the mobile industry there is no concept of a migration unless the customer wishes to keep their existing mobile number. Otherwise, the customer simply sets up a new account and is required to produce proof of identification and validation criteria such as direct debit details in order to do so. The PAC mechanism is used only where the customer wishes to keep their existing number and consequently our assumption is that it is relatively more difficult to slam a customer in the mobile industry compared to fixed line products and services. Since validation and verification are already provided by way of the PAC then it seems unlikely that extending an authorisation code based process to this industry would offer any further benefit in terms of validation and verification.

In the cable industry the differences in the access architecture mean a cease of one service and a new provide of another is required. It could be argued that validation and verification is less important since the customer has to give access to the provider to their property to install the line; and that this provides an additional layer of validation. However, the current number of customer touch points and lead time involved in switching from cable to another provider and the associated customer inconvenience could be perceived as a barrier to switching. Consequently we think the Multi MAC process would offer some benefit in this scenario as the GP could use the code as their authorisation to coordinate the migration on behalf of the customer. The process would become more streamlined from the customer’s perspective. In cases where the GP does not offer wholesale line rental services either via WLR or full MPF then inevitably there will be additional touch points for the customer in terms of ordering that infrastructure directly from an alternative retailer with whom they need to have a direct billing relationship.

5.5.4 Costs

Extending the MAC process across the transferable voice and broadband industry is likely to cost in the region of £100 – 200m to set up with an annual operating cost of £2 -3m. The main drivers of this cost estimate are outlined in the figure below. The variances in cost relate to the complexity of the solution that is ultimately scoped and the extent to which it is an extension of the existing process. It should also be noted that a key variable would be whether the MAC in its current form as operated by Openreach would be extended or whether a new format of authorisation code would be designed, and who would operate it.

![Figure 18: Cost estimates for the Multi MAC option](image)

<table>
<thead>
<tr>
<th>Cost Description</th>
<th>Year 1</th>
<th>Ongoing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ofcom and Industry programme management resource</td>
<td>£1,000,000</td>
<td>£500,000</td>
</tr>
<tr>
<td>Feasibility, design, test, implementation, build costs</td>
<td>£50,000,000-£100,000,000</td>
<td>£1,000,000</td>
</tr>
<tr>
<td>CP interface development build</td>
<td>£50,000,000 -£100,000,000</td>
<td>£1,000,000</td>
</tr>
<tr>
<td>Estimated Cost Range</td>
<td>£100-200m</td>
<td>£2-3m</td>
</tr>
</tbody>
</table>

5.6 Compensation

5.6.1 Incremental customer benefits

Compensation is likely to lower artificial barriers to switching if it is successful in compensating customers for elements of the customer experience (such as timeliness) as well as for prohibited behaviour such as slamming. The process is likely to simplify and clarify the means by which customers seek redress in the event of non-compliance or other difficulties. It is also a swift deterrent
to non-compliance when compared to the lengthy process involved in an investigation under the
remit of General Condition 22.

**Figure 19: Customer convenience and compensation.**

<table>
<thead>
<tr>
<th>Benefit component</th>
<th>Incremental impact</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>No undue or artificial barriers to switching</td>
<td></td>
<td>Compensation could remove ‘stickiness’ by encouraging appropriate migration speed and providing the customer with a level of confidence that the CP is incentivised to ensure their experience was a positive one. SLAs could be constructed around the migration process based on the desired customer experience.</td>
</tr>
<tr>
<td>Timeliness</td>
<td>Positive</td>
<td>Proposed process will simplify the means of redress in the event of difficulties. It is recognised that often in cases of migration issues or failure, the customer has difficulty in getting either party, the LP or the GP to take ownership of their issue through to resolution. A compensation framework would simplify the process by providing the customer with a clear and consistent process for the ownership and resolution of their issue.</td>
</tr>
<tr>
<td>Simplicity</td>
<td>Positive</td>
<td>No change from current process. This process would result in the least disruption to industry. The successful implementation of ADR schemes has demonstrated this. However, it is important to note that a compensation framework appears unlikely to deliver sufficient customer benefit in its own right. It should not be viewed as an alternative to a single process but rather as incentive to comply with any revised process.</td>
</tr>
<tr>
<td>Minimum disruption to existing services</td>
<td>Neutral</td>
<td>Proposed process should incentivise a seamless transfer, but since no re engineering of the migration process is proposed, there is no incremental improvement over existing approaches.</td>
</tr>
<tr>
<td>Single process</td>
<td>Neutral</td>
<td>No change from current process. This process would result in the least disruption to industry. The successful implementation of ADR schemes has demonstrated this. However, it is important to note that a compensation framework appears unlikely to deliver sufficient customer benefit in its own right. It should not be viewed as an alternative to a single process but rather as incentive to comply with any revised process.</td>
</tr>
<tr>
<td>Minimum number of touch points</td>
<td>Slightly negative</td>
<td>The number of touch points will be increased slightly due to the need for compensation to be claimed for (which also slightly increases the number of touch points) and also the possibility of managing arbitration and other forms of dispute resolution.</td>
</tr>
<tr>
<td>Seamless transfer</td>
<td>Neutral</td>
<td></td>
</tr>
</tbody>
</table>

We would also note that the proposed system of compensation:

- Addresses the end-to-end customer experience is flexible enough to accommodate specific customer issues where CPs are failing customers; and
- Incentivises CPs to invest in the system development, training and process re-engineering required to support a positive and seamless customer experience.

### 5.6.2 Process efficiency

The key considerations with respect to compensation appear to be:

- Supporting competition in the retail and wholesale markets, and
- Avoiding discrimination amongst providers.
In introducing a compensation scheme, it appears important to ensure that the costs of introduction are not borne disproportionately by certain types of CP. Based on our discussion in section 4 above, further consultation and planning would be required to establish / fund both a monitoring mechanism and a dispute resolution service. During our consultations with industry, participants expressed concern that monitoring and resolution of complaints would constitute an additional burden, particularly with current concerns with data integrity. However, we would note that the impact of such a burden is likely to be substantially mitigated for a compliant provider which executed transfers in a timely manner.

There may be some economies of scale, even for fully compliant providers, in dealing with compensation. Depending on the precise details of the scheme, and an ability to address practical issues such as data quality, it should be possible to construct the scheme in such a way that there was no discrimination amongst providers.

A key advantage of a compensation mechanism is that there is no critical dependency of the scheme on details of systems and it would be technology neutral. Further it appears likely that an efficient system would incentivise CPs to invest in more automation to address migration process issues.

### 5.6.3 Validation and verification

A compensation framework has significant advantages in terms of validation and verification since it directly incentivises compliance thereby offering the customer a clear level of protection. In this regard, it would be appropriate for any final agreed compensation framework to include criteria for compensating a customer where a GP had failed to carry out industry agreed validation processes by recording the relevant information.

A compelling benefit of a compensation framework is its ability to address the issue of bundle mis-selling. Deloitte share Ofcom’s concern that this form of mis-selling is likely to increase, particularly with the continued roll out of LLU and MPF services by CPs. This option has the advantage of being able to specifically target this potential source of customer detriment by making it one of the fundamental compensation criteria.

It is also of note that compensation could also be used to address the issue of unauthorised and failed transfers which arise when CPs complete bulk migrations. Current processes do not account for this issue which can have significant implications for the customer, especially in cases where they lose access to their service. As in the case of mis-selling, the practice of bulk migration is likely to increase as CPs seek to transfer their customers to lower cost infrastructures such as LLU and full MPF.

### 5.6.4 Costs

Adoption of compensation is likely to lead to a set up cost in the region of £17-18m, with ongoing costs estimated to be in the region of £2m. The following figure identifies the key drivers of these estimates.

**Figure 20: Cost estimates for compensation**

<table>
<thead>
<tr>
<th>Cost Description</th>
<th>Year 1</th>
<th>Ongoing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ofcom and Industry resource programme management</td>
<td>£500,000</td>
<td>-</td>
</tr>
<tr>
<td>management resource</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vendor selection, process and infrastructure design,</td>
<td>£15,000,000</td>
<td>-</td>
</tr>
<tr>
<td>and implementation consultant resource</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annual operating cost based</td>
<td>£2,000,000</td>
<td>£2,000,000</td>
</tr>
<tr>
<td>Estimated Cost Range</td>
<td>£17-18m</td>
<td>£2m</td>
</tr>
</tbody>
</table>
Deloitte estimate that a significant proportion of the costs would be incremental since there would be a cost of failure to CPs in cases of unauthorised migrations, failing to address any migration issues and the associated complaint handling costs.

The principle costs associated with this customer migration facilitator are:

- Programme management resource costs related to the implementation of a contact centre to administer this process;
- Business analysis resource costs related to the operational design;
- Resource costs for the development of a basic customer database;
- Ongoing management costs; including the operational cost model, assuming that a 3rd Party vendor was selected, these would be subject to variance depending on volumes; and
- Establishing a robust governance framework to manage and ‘police’ this function would be critical to its success and the costs associated with this are likely to be significant.

The variations in cost are driven by the scope of the solution that is agreed. Depending on the framework’s scope of support, its remit and objectives along with its opening hours, investigative processes and powers will all impact the cost of this solution.

5.7 Cost benefit comparison

The following figure summarises the conclusions of the analysis presented above. The ranking of the options in terms of cost and benefit is a simple summary and is ordinal not cardinal in nature. The information available in terms of relative benefits provided is not sufficient to allow a sophisticated cost benefit analysis that balances relative benefits against cost differences

<table>
<thead>
<tr>
<th>Migration Option</th>
<th>Cost Ranking</th>
<th>Benefit Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICP Process</td>
<td>Medium</td>
<td>High</td>
</tr>
<tr>
<td>Multi MAC</td>
<td>Medium</td>
<td>Low</td>
</tr>
<tr>
<td>Single Code</td>
<td>Very high</td>
<td>High</td>
</tr>
<tr>
<td>3rd party data hub</td>
<td>Very high</td>
<td>Highest</td>
</tr>
<tr>
<td>Compensation framework</td>
<td>Low</td>
<td>Medium</td>
</tr>
</tbody>
</table>

As may be expected the relative benefits associated with the different options varies in association with their costs. Clearly the choice of where the appropriate balance between these two factors lies is a choice for Ofcom in liaison with the industry.

Ofcom have, however, asked that Deloitte identify which options provide the most appropriate balance of additional benefits for the level of investment required. It appears unlikely that the additional benefits that may be delivered by the introduction of a single code and 3rd party data hub are outweighed by a combination of the:

- Scale of costs involved; and
- Complexity of implementation and operation of these schemes and the associated risk to the customer experience.

---

26 This would require detailed primary survey investigation of consumer preferences.
In the case of the Multi MAC option, we conclude that whilst the process offers a high degree of consumer protection against slamming and mis-selling, and is a logical progression from the current Broadband and Mobile migration processes; the potential customer inconvenience associated with this process, particularly in the case of a bundle migration outweighs the customer protection benefits it offers. As such, we have concluded that there would be limited rationale for Ofcom to proceed with these options and focus the remainder of our discussion on the other two options.

Based on the qualitative evidence available, the ICP process potentially supported by a compensation framework, best meets the challenges set and we discuss this further in the next section.
6 A potential way forward

In the previous section we outlined the rationale for supporting a GP led process and specifically the ICP process described, along with a compensation framework. We note that the ICP process exhibits customer benefits which are proportionate to costs and has a number of advantages:

- The fundamental benefit that this option presents is the opportunity to centralise the migrations process, with the least disruption to industry and customers. We would conclude that this concept of centralising the process is the most effective method of introducing the transparency required to manage and drive ongoing improvements to the process. An observation related to the limitations of the current migration processes is the inability to centrally monitor and evidence compliance to the process, thereby providing process transparency. Ensuring that the process is consistent across the industry and having the capability to measure its effectiveness will be a major step forward in incentivising a positive customer migration experience;

- Few customer touch points: the ICP processes is GP led meaning the customer has only one point of contact to initiate their migration request, which offers a significant level of customer convenience;

- Being GP led: meaning that the LPs opportunity to exert any pressure on the customer to change their mind thereby stifling competition is minimised. In addition a GP led process would mean that the GP is responsible for managing the transfer on behalf of the customer, acting as a single point of contact and ownership; and

- Providing a high level of customer protection: there are clear requirements for an agreed set of customer data to be validated at the beginning of the process, reducing the risk of an unauthorised transfer.

The compensation framework reinforces these advantages by providing CPs with an added incentive to comply and providing the customer the benefit of being reimbursed in the event of issues developing.

Furthermore, the GP Led and Compensation based proposals received some support from our review of international experience. Specifically the Australian and Danish communications sectors use GP led processes, based on the GP using best endeavours to identify the customer, which in this context would mean an industry agreed set of validation criteria. Compensation is a feature of the Irish and US telecommunication regimes and in the UK electricity markets. Although the Irish and US regulators were unable to provide us with any statistics as to the effect this feature has had on the number of switching related complaints, we note that Ofgem’s assessments of the Erroneous Transfer Customers Charter found it to be effective in reducing the number of complaints and fulfilling customer expectations.

Having concluded that a GP led, centralised process offers the greatest customer benefit, we believe that the specific features of the ICP process appear likely to deliver the majority of the incremental customer benefits. The proposed revision of the process involves substantially less incremental investment in new IT systems and operating procedures compared to alternative options, which is likely to be prohibitive for many CPs. Although the cost involved would be significant, as with any process centralisation on this scale, based on the qualitative evidence available it is our conclusion that this option would address the key current process issues identified as a source of customer and industry detriment. In particular:
• The onus on the customer to facilitate the process is removed and the GP has a new role as being the recognised and responsible owner and facilitator of the transfer process and the single point of contact for the customer;

• The option can be implemented on an incremental basis thereby allowing the incremental benefits to be assessed and minimising the risk of any implementation issues and disruption to industry;

• There is a significant level of validation and verification that takes place to protect the customer against unauthorised migrations as a result of the data that is validated between the GP and the LP and the subsequent customer communications this would trigger. This validation is particularly important in the context of bundle and LLU migrations where new forms of slamming could potentially emerge. A customer could easily find their line rental and call package switched following a request to transfer their broadband service;

• There is a single centralised gateway/interface for CP to CP communications as opposed to the one to many interfaces that would need to be in place to facilitate communication between all CPs. If we consider the number of interfaces each CP would need to create to interface with other CPs in migrations scenarios it is obvious that this would soon become a matrix of communications points and could become unmanageable. This is a risk to the effectiveness and timeliness of the process in itself;

• The exchange of information between the GP and the LP required to validate the migration is centralised and can be controlled and audited, this is particularly important for the regulator in identifying and implementing further enhancements to the process and in the case of any disputes. The clearing house can act as virtual referee in terms of the exchange of data and monitor any failure to comply with the process. It could be argued as per one of the initial options that a 3rd party could be placed at the beginning of the process to represent this layer of additional validation. It is however our conclusion that this solution would not be beneficial to the customer; firstly because in the context of complex bundles it would be very challenging to ensure the 3rd Party representatives were sufficiently knowledgeable regarding the multitude of communications packages to be able to competently advise the customer. Secondly, because this still does not resolve the issue that the customer does not have a single point of contact and ownership; the role that is envisaged for the GP in the case of migrations process issues, who is empowered to resolve the issue on their behalf; and

• This option is flexible in the sense that there is further scope and opportunity to enhance and increase the role of the ICP system in the transfer process; for example to drive further improvements in the speed of the migrations process and to include new access products in the process without the requirement for a process overhaul.

A system of compensation should support this by sending appropriate signals to CPs. Whilst this approach may have implications for operating procedures and would require investment and cooperation from CPs we do not envisage these would be material or discriminatory between CPs. We would hope that the introduction of a compensation system may in fact encourage greater process efficiency by incentivising compliance and possibly also investment in service intended to reduce and mitigate problems with the current migrations process.

Clearly in making this recommendation, trade offs are incurred. In this case, a GP led system will lead to a better customer experience, lower costs and market / competition benefits, but provide for some ongoing potential for mis-selling. Clearly no process will be fail safe in protecting against slamming and mis-selling and issues have developed in the broadband and mobile sectors. We have, however, concluded that substantial improvements could be achieved by the approach
recommended. Furthermore, whilst the ICP process could be viewed as costly and still presenting a risk for mis-selling or LP interference in the process, this appears acceptable when:

- Traded off for the positive customer experience the process offers; and
- Combined with the transparency of compliance offered by a centralised process and the mitigation provided by the compensation framework.

The extent of our recommendations for implementation are limited by the high level scope of our work and further analysis is required to develop a detailed feasibility study for whichever approach Ofcom chooses to take forward.

6.1 Stakeholder Impact Assessment

In the table below we have attempted to identify the main ways in which the key stakeholders might be impacted by the proposed process.

Figure 22: Key impacts by stakeholder created by the ICP process

<table>
<thead>
<tr>
<th>Industry Stakeholder Impacted</th>
<th>Description of impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Openreach and communications wholesalers</td>
<td>Set up, access to and maintenance of centralised communication facilitator for transferable voice and BB products. The MAC in its current form will need to be redundant and the ICP operated by a third party. Consequently there would be significant additional costs to Openreach and CPs to decommission the MAC process they have invested in.</td>
</tr>
<tr>
<td>Communication retailers.</td>
<td>Operational costs of handling additional contacts from all customers wishing to switch and proactively managing the switch on behalf of the customer.</td>
</tr>
<tr>
<td>Cable providers</td>
<td>Operational costs of handling additional contacts from all customers wishing to switch and proactively managing the switch on behalf of the customer.</td>
</tr>
</tbody>
</table>
| Mobile providers | • Operational costs of handling additional contacts from all customers wishing to switch and proactively managing the transfer on behalf of the customer.  
• Development of interface to ICP. The costs could be less here of the development was included in the scope for the changes proposed to the mobile database in 2008/09.  
• Funding set up of ICP process.  
• Process and system re-engineering costs. |
|---|---|

### 6.2 Implementation considerations

It is recommended that any process change be implemented using a phased approach to minimise implementation risks and to ensure the incremental benefits can be assessed. Based on the process recommendation outlined we would have suggested the following implementation schedule as an example. However we would recommend that the transitional process requirements are the basis for further consultation with industry.
### Figure 23: Suggested implementation phases for the ICP process and compensation framework

<table>
<thead>
<tr>
<th>Phase and participants</th>
<th>Key features of phase</th>
<th>Success measures</th>
<th>Parallel activity</th>
<th>Timeline</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Phase 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cable</strong></td>
<td>Making immediate changes to the cable migration process appears to offer a quick win opportunity to reduce the significant migration lead time that exists currently and to reduce the ‘stickiness’ of bundles. GP has responsibility for coordinating the transfer with the LP on behalf of the customer to reduce the customer involvement required and the timescale for the transfer. GP Led – GP coordinates the migration on behalf of the customer. Industry agreed minimum set of customer information to empower GP to act behalf of the customer. Runs in parallel with the existing processes dependent on which provider the customer contacts in the first instance. Regulatory obligations introduced with regard to GP led slamming similar to those for the Broadband industry under General Condition 22. GP and LP interim communications method agreed between CPs. Industry would need to agree the most effective interim CP to CP communication method before the full implementation of the ICP. In cases where customer is moving to multiple providers the line provider should take ownership of the transfer and advise the customer when they can contact other providers to ensure other services can be provided over that line.</td>
<td>No increase in slamming complaints received by the Ofcom contact centre or the Ombudsman. Reduction in the number of migration related complaints received by Ofcom and the Ombudsman. It is likely that dedicated reporting processes would need to be implemented to monitor the impact of the changes implemented due to the lack of current evidence regarding customer detriment. These would need to be implemented by Ofcom and the Ombudsman.</td>
<td>Build and test of centralised ICP interface. Customer communications and education. Consultation and negotiation on industry SLAs for migration related issues. Consultation and negotiation for industry agreed KPIs for compliance with ICP process.</td>
<td>6 – 12 months dependent on build requirements specification.</td>
</tr>
<tr>
<td><strong>Mobile</strong></td>
<td>PAC is obtained by GP from LP following validation of pre agreed industry information. GP has responsibility for coordinating the transfer with the LP on behalf of the customer to reduce the customer involvement required and the timescale for the transfer. Runs in parallel with the existing processes dependent on which provider the customer contacts in the first instance. Note that the process changes here would be dependent on whether the changes proposed for September 2009</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
had been implemented. If these changes were already effective then there would be no change to the process from the customer perspective.

Regulatory obligations introduced with regard to GP led slamming under General Condition 18.

GP and LP interim communications method agreed between CPs.

*Implementation in this industry should be closely aligned with the proposed changes to the number portability process.*

**Voice**

Process remains as is – process is already GP Led.

Letters of Authorisation remain in place.

**Broadband**

In scenarios where MAC is available this is obtained by GP from LP following validation of pre agreed industry information. In scenarios where the MAC is not available then the process continues to be initiated by the GP. GP has responsibility for coordinating the transfer with the LP on behalf of the customer to reduce the customer involvement required and the timescale for the transfer.

Runs in parallel with the existing processes dependent on which provider the customer contacts in the first instance.

Regulatory obligations enhanced with regard to GP led slamming under General Condition 22.

<table>
<thead>
<tr>
<th>Phase 2</th>
<th>Roll out of centralised interface on a product by product basis in the same order as outlined for phase 1.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Runs in parallel with the existing processes dependent on which provider the customer contacts in the first instance, until ICP process has fulfilled all user acceptance testing criteria.</td>
</tr>
<tr>
<td></td>
<td>SLAs implemented and supported by similar obligations to those in the</td>
</tr>
</tbody>
</table>

|                      | All processes should be tested and signed off as fully operational and for purpose before the roll out is extended to the next product set. |

|                      | It is anticipated that each product should be operational using the interface for a period of at least 4 – 6 weeks before it can be assessed as being |

|                      | 4 – 6 weeks process monitoring per product set. Approx 6 month roll out period. |
Broadband industry which is subject to General Condition 22 conditions for migration related issues.
KPIs implemented ICP process and monitored by governance board on agreed regular basis.

fit for purpose to enable to next phase of roll out to commence.
Implementation timescales are therefore likely to be in the region of 6 months.

There is a need for consistency with proposed changed to the mobile portability process as this could highlight further implementation considerations. However, we note that the concept of a 3rd party facilitating the migration/port authorisation code is derived from the mobile industry and hence this should not be onerous
Phase 3
The final element of the phased implementation would be compensation. We suggest that this should be considered following a review of the incremental benefits achieved as a result of the ICP process. The following performance indicators of the process effectiveness could be considered:

- Reduction in number of slamming complaints to the Ofcom contact centre and the Ombudsman;
- Number of switching related complaints received by the industry and the Ombudsman;
- Average transfer time for each product set as measured by the ICP KPI criteria;
- Percentage of successful customer validations by the LP as measured by the ICP KPI criteria;
- Average ‘end to end’ transfer time for each product as measured by the GP;
- Number of disputes raised by the industry; and
- Number of ‘cancel others’.

Some of these indicators are not currently measured and process change would be required to capture this data. Clearly a robust and agreed framework would be a necessary condition for the establishment of any compensation framework. It seems appropriate that the effectiveness of the ICP process is assessed before any compensation framework is introduced. Further work to define and measure customer detriment will be required to allow this approach to proceed.
A1 Glossary

- 21CN: Twenty First Century Networks
- ADR: Alternative Dispute Resolution Scheme
- AOT: Advice of Transfer
- ARPU: Average Revenue per User
- BB: Broadband
- BSS: Business Support Systems
- CISAS: The Communications and Internet Service Adjudication Scheme
- CP: Communications Provider
- CPE: Customer Premises Equipment
- CPI: Comparable Performance Indicator
- CPS: Carrier Pre-Select
- DB: Database
- DSL: Digital Subscriber Line
- EMP: Equivalence Management Platform
- FMPF: Full Metallic Path Facility
- FTE: Full Time Equivalent
- GP: Gaining Provider
- ICP: Inter Communication Provider Process
- ICPCS: Inter Communications Provider Communications System
- IP: Internet Protocol
- IPTV: Internet Protocol Television
- ITT: Invitation to Tender
- KPI: Key Performance Indicator
- LLU: Local Loop Unbundling
- LOA: Letter of Authorisation
- LP: Losing Provider
- MAC: Migration Authorisation Code
- MPF: Metallic Path Facility
- NGA: Next Generation Access
- OCC: Ofcom Contact Centre
- OSS: Operational Support Systems
- Otelo: Ofcom telecommunications and Internet complaints Ombudsman
• P&S: Products and Services
• PAC: Porting Authorisation Code
• PIN: Personal Identification Number
• SLA: Service Level Agreement
• SMPF: Shared Metallic Path Facility
• SOA: Service Oriented Architecture
• SP: Service Provider
• VoIP: Voice over Internet Protocol
• WLR: Wholesale Line Rental
A2 Summary of phase 1

This annex provides a summary of the work conducted in phase 1 of this project. In this phase Deloitte identified and agreed 18 options with Ofcom, including both those identified by the the IWG and any other options / combination of options that Deloitte concluded may be appropriate following discussions with Ofcom. Deloitte then sought to rank these options against:

- The relative benefit that they would provide, measured in terms of incremental benefit; and
- Their likely overall cost.

Our starting point was the list of options contemplated by the IWG (many MAC, basic 3rd party validation, A hybrid of Many MAC and 3rd party, 3rd party validation level – levels 2 and 3, MAC+, on bill code, “as is” with advice of transfer). This list was then increased by adding:

- Potential options for inclusion on the long list was our review of international and sector practices and experiences (on bill code and compensation, whole process led by GP, whole process led by LP, centralised process / database led by GP, centralised process / database with compensation, customer contacts both the LP and GP, GP led with ex post validation compensation and tiers, PIC freeze on line until customer authorises); and
- Other options developed on a “blue-sky” basis by examining new processes borrowed from other fields and disciplines (including letters of authorisation, compensation and the use of performance indicators) which could conceivably deliver material customer benefits.

The framework for considering relative benefits provided by each of these options is summarised in the following figure.

Figure A2-1: Framework for considering benefits

- **Customer Convenience (40%)**
  - Timeliness
  - Simplicity
  - Minimum disruption to services
  - Single process
  - Minimum number of end-user touch points
  - Supports product bundles
  - Customer is well-informed
  - Transfer seamless to customer
  - Permits reasonable changes of mind
  - Process is automated

- **Protection from mis-selling (30%)**
  - Protection from slamming
  - Protection from other forms of mis-selling
  - Evidence-based process where possible
  - Customer’s legal rights protected and respected
  - Customer is well-informed
  - Presence of end-user touch points
  - Transfer period should be long enough to permit rejection of a slam

- **Customer choice (10%)**
  - Allows for cooling off period
  - Customer is well-informed
  - No undue or artificial barriers to switching
  - Allows for “save” if appropriate
  - Allows for “win-back” if appropriate
  - Supports competition in the wholesale and retail markets

- **Customer cost (10%)**
  - Cost recovery done on an economic basis
  - Process is not unduly expensive to customer
  - Asset recovery not unduly expensive or burdensome to customer

- **Process efficiency (10%)**
  - Cost recovery on an economic basis
  - Process encourages cost minimisation
  - LP is able to recover due funds
  - Asset recovery on economic basis
  - Non discrimination amongst providers
  - Validation process not unduly burdensome for providers

The contribution of individual benefits (convenience, protection from mis-selling, choice, and efficiency) was determined by calculating a weighted average of the score of these individual components. Following discussions with Ofcom we assigned a weight of 40% to customer convenience, 30% to protection from mis-selling, and 10% to each of the three remaining elements. To determine the robustness of our results, we examined the effect of changing the weights and...
checking for any changes in relative ranking. These weights were then combined into a simple relative benefit ranking. Classifying benefits in this fashion permits a ranking of migration options in terms of the benefits to be generated. In addition to these criteria, we also identified a number of “benefit enablers” which we felt were likely to characterise any successful proposed migration options.

Our approach to articulating the costs associated with a single migrations process in Phase 1 was based on identifying and reviewing the operational cost criteria in implementing and maintaining any migration option, to give us a high level view of the main cost drivers. The output of this analysis was a relative cost for each of the migration options, to be assessed in conjunction with the benefits already identified. We assigned a 50/50 weighting to system/technical and operational costs since we believe they are of equal importance, and made the distinction, where appropriate, as to whether the costs were implementation related or ongoing.

A simple approach was then taken to compare the relative costs and benefits of each migration option. Costs and benefits were both assigned values between 1 and 5 (with costs and benefits both increasing from 1 to 5), and pairs of benefits and costs located each option in cost/benefit space; using this methodology, options could be assessed for their joint performance on costs and benefits.

Figure A2-2: Outline of Phase 1 Methodology

Our work in Phase 1 demonstrated that our analysis should be focused on the component part of the migration mechanism and not its application to a particular product set. Our interim report did not commit to a specific migration process mechanism. We also identified a number of important “trade-offs” required in constructing processes. For example, having multiple end-user touch points may deliver some measure of protection against slamming and keep the customer well informed, but the time and inconvenience of managing this number of touch points may represent a substantial cost to the consumer. In particular we noted that:

- No ‘one size fits all’ in terms of single migrations process.
- Technical and operational constraints mean a ‘Pick and mix’ approach is more appropriate.
- Migration option should be ‘trigger event neutral’.
- Service Providers are likely to need to reorganise their operational organisation in order to comply with any option.
High benefits of some options mean they need to be considered carefully before they can be rejected on basis of cost alone.

Following discussions with Ofcom it was also agreed that we should give further consideration to the role of the stakeholder or “customer contact” in our deliberations since the role is critical to the validation and verification process. To this end, in conjunction with Ofcom, we identified the following four customer contact options:

- Gaining provider (GP) led process.
- Losing provider (LP) led process.
- Customer led process.
- 3rd party led process.

Ofcom sought that the list of options to consider in more detail in phase 2 should cover all of these four types of solution. Following discussions with Ofcom and taking into account our work in phase 1 the following options were identified for further consideration in phase 2:

- ICP Communications process: A variant of the existing MAC process which is GP led and includes a simple third party intermediary to act as the communication facilitator between the GP and the LP;
- A Multi MAC process which continues to be LP led and where the customer is responsible for obtaining an authorisation code for each of the following products they intend to switch; broadband access, fixed line access and mobile access. In scenarios where the customer wanted to switch to or from a bundle they would need to provide the GP with all 3 codes (for a bundle with three products);
- A single code process: Where the customer would be assigned a single code which would be associated with their premises and where all their communications products and services would be associated with this code. The customer would use this code in a similar way in which the MAC and PAC is used in order to authorise and facilitate their migration request; and
- A 3rd party data hub process: Where in the absence of a single data repository of all network assets then a third party centralised data hub would facilitate the data transfers required for a migration between the LP, GP and access provider via numerous dedicated interfaces.

In addition we considered the merits of a compensation framework, based around a GP (gaining provider) led process involving compensation, and transfer notifications being issued to the customer. The objective of the framework is to penalise the CP in the event of non-compliance. The other options presented are more concerned with preventing non-compliance by facilitating the transfer and stipulating appropriate levels of validation and verification. For this reason, we do not envisage compensation being a migration process solution in its own right, rather as an added incentive to supplement another option to provide the ultimate consumer protection. This option is therefore designed to protect against any loopholes in the validation and verification features offered by other migration options.

It was also agreed that our work in phase 2 should be based on the following considerations:

- The customer experience of the migration process should be explicitly considered in our analysis.
- High cost mechanisms should not simply be ruled out on the basis of cost alone. Rather a further analysis of the costs and benefits should be completed to determine if the process
has the advantage of being able to address longer term strategic objectives as opposed to being a ‘quick fix’ solution to address current issues.

- Process options should be organised around different stakeholders, i.e. which stakeholder would be responsible for driving the process.
- Potential variations of these process mechanisms should be considered to determine which is most likely to deliver maximum consumer protection and benefit within the industry technical constraints.
A3 Industry briefing document

The following document was sent out to industry ahead of our workshops. The purpose of this document was to provide industry with some background with regard to the scope of our study and more generally to generate some debate and therefore encourage representatives to attend the workshops to outline their views. It was recognised that CPs would be unable to provide accurate responses to the majority of these questions due to the cost modelling limitations that have already been outlined. The objective as stated was to generate debate and discussion.

Background

Consultation on migrations, switching and mis-selling

Ofcom considers that it is vital to support consumer’s ability to migrate between products and providers – so that consumers can consider available options and change their current service(s) and provider(s) where they want to. Where switching is not easy, customers are less likely to want to switch. Ofcom is conducting a review of the case for a single process for migrations for all transferable voice and broadband services as part of a migrations, switching and mis-selling project.

Ofcom's view, as set out in their consultation document, was that switching was not always simple given different migrations processes have evolved over time for different products. In practice, therefore, switching can become very complicated, particularly as consumers increasingly look to transfer a ‘bundle’ of different products together (e.g. some combination of voice, broadband, mobile and digital TV).

As part of its review, Ofcom encouraged the industry to establish a Migrations Industry Working Group (IWG) with the principal aim of making recommendations to Ofcom on preferred options for single migrations processes. The IWG provided a report on its findings to Ofcom on 21 September 2006.

Following on from this, Ofcom has engaged Deloitte to develop a broader picture of the costs and benefits of the changes required to deliver a variety of migration options. Deloitte proposes to hold a number of workshops with industry, designed to collect quantitative and qualitative information relating to potential migration options.

Objectives of the Present Study

The aim of the study is to use the IWG report and, through further discussions with industry and taking account of responses to the February 2006 consultation, provide a report to Ofcom which sets out a detailed costs and benefits analysis of the process reforms required to deliver the migrations options set out in the IWG report and those which have emerged during our study, to include:

- The cost to implement various migrations options, and the likely timeframes for completion;
- The costs of ongoing operation and maintenance;
- What transitional issues are likely to emerge, and how these could be managed to ensure that any disruption to consumer and industry is minimised; and
- Consideration of these costs against the resultant ‘customer experience’.

The purpose of this document is to provide you with some background to the options short listed for consideration before the workshop, to enable you to consult internally on the potential costs and benefits of each option; to better inform the workshop discussion. We would therefore encourage you to take the time to consider these proposals internally and attend the workshop as your answers will be used to inform an industry-wide study. Should you be unable to attend a workshop there is an opportunity to submit a written summary of your feedback.
Objectives of the Workshops

The purpose of the workshops is to focus on the impact of these particular mechanisms on different groups of stakeholders and the costs and benefits of each, as opposed to a detailed review of the business process or policy. This would require a lot more analysis; more detail is obviously required on the detail of specific options. However, at this stage it is the principle of the various mechanisms in terms of the costs and benefits associated with each we are concerned with, and looking to test.

Where possible we would like to be able quantify costs although we recognise that these are likely to be difficult to obtain. A critical consideration is obviously risk and so identifying potential implementation and transition issues is another important area for discussion.

Prior to the workshop we would ask you to consider each of the process mechanisms outlined, and the way in which they have been configured to produce a short list of options and collate your feedback. Please note that your feedback should be constructed around the 4 points laid out in the previous section in terms of the objectives of the study.

Proposals

This section outlines the 4 short listed process options based on the IWG feedback and Deloitte’s initial analysis of alternative options which meet Ofcom’s objectives.

The approach developed by Deloitte, is based on using a number of ‘process mechanisms’ to facilitate the migrations process and to configure these to develop a process solution.

1. Process Mechanisms

The principal process mechanisms identified, have been derived from industry and sectoral experience as well as from the original IWG options. These can be summarised as:

- Compensation and ‘Tiering’ Framework. This would inevitably entail the establishment of a 3rd Party function to manage and facilitate any process. The principal function of the compensation mechanism would be to protect the customer against unauthorised transfers or ‘slamming’. The ‘Tiering’ option would have a similar role in monitoring unauthorised migrations and consequently rating Service Providers on their compliance. Where a Provider was not deemed to be compliant; having transferring customers without their consent, then the Provider may be relegated to a lower ‘tier’. This would result in the loss of certain advantages associated with the migration process; such as being able to initiate a migration immediately on the customer's request. In being relegated a tier it may for example mean that the provider has to wait for a predetermined period of time before being able to complete the migration request. The main outcome of this mechanism being; providers would be incentivised to remain in the ‘top’ tier.

- Migration authorisation code generated at the point of switch. This mechanism would work in the same way as the current process for broadband and mobile migrations involve the customer being issued an authorisation code at the point at which they request to switch providers. The code is generated by the losing provider and has a limited lifespan before it expires. The code is used as a unique reference to protect against slamming. The process would need to be extended to fixed line voice services. This is mechanism referred to in the IWG report as ‘Many MAC’.

- Single code mechanism MAC+ ‘A Passport for Migration’. This code would work in the same way as the current MAC/PAC but would be a code that the customer had throughout their tenure. It would be similar to PIN and unique to the customer. One way for the customer to be aware of this PIN is if it were to be displayed on the customer's bill. This is the mechanism referred to in the IWG report as ‘MAC+’.
Centralised process as best exemplified in the utility industries. In the absence of a single data repository of all network assets; the migration process involves coordination between the losing provider, gaining provider and access provider where applicable via numerous dedicated interfaces. Consequently, the ability of a 3rd Party to facilitate the process is obstructed by the number of provider specific systems and interfaces involved. A centralised switching mechanism would involve the customer contacting the new supplier only. The new supplier would then contact a party acting as an information hub which possesses access to the data needed in the switching process. The gaining and losing provider would not exchange information with each other under this scheme; instead it would be mediated through the 3rd Party. The 3rd Party would operate a centralised database containing information relevant to the customer and necessary to execute the transfer. A standard method of transmitting data would be used to allow for enable electronic handling and storage of data without manual intervention, increasing the speed, security and reliability of the data transmissions and ensuring that the stored information is correct, which reduces to some extent the possibility of mis-selling.

**Process Options**

The 4 options listed below detail how these particular ‘process mechanisms’ have been configured and organised around a particular stakeholder as the initiator of the process; to create the shortlist of migration solutions.

- **Gaining Provider Led Process: Key Principles:**
  - The customer would need to contact the gaining provider only in order to initiate the switch.
  - The gaining provider would take responsibility; liaising with the losing provider in order to facilitate the migration.
  - The migration would still be instigated via the MAC/PAC process but this would be ‘invisible’ to the customer in that it would be a back office transaction between the gaining and losing provider.
  - In the case of unauthorised transfers or a ‘slam’ then the customer would be compensated with a pre determined sum; as agreed by a 3rd Party Administrator.

- **Losing Provider Led Process: Key Principles:**
  - The customer would need to contact their losing provider to advise them of their decision to switch as per the current process.
  - The losing provider would issue the customer with a migration authorisation code. This code could be generated at the point of switch as per the current process for broadband or voice.
  - Service Provider compliance in terms of unauthorised migrations would be monitored via a ‘tiering’ scheme which would essentially determine how quickly the gaining provider could process the customer migration request.
  - In the case of unauthorised transfers or a ‘slam’ then the customer would be compensated with a pre determined sum; as agreed by a 3rd Party Administrator.

- **Customer Led Process: Key Principles:**
  - The customer would take responsibility for initiating the migration by providing the gaining provider with the migration identification number/single code. Either Many MAC or a single code; MAC+.
o The customer would be aware of this code as a result of the SP having responsibility for printing it on the customer’s bill. Alternatively the SP would have a responsibility to advise the customer of this code via any channel of communication, at the customer’s request.

o Service Provider compliance in terms of unauthorised migrations would be monitored via a ‘tiering’ scheme which would essentially determine how quickly they could process the customer migration request.

o In the case of unauthorised transfers or a ‘slam’ then the customer would be compensated with a pre determined sum; as agreed by a 3rd Party Administrator.

• 3rd Party Centralised Process: Key Principles:

  o The customer would contact the gaining provider to arrange their migration.
  
  o The gaining provider would contact the 3rd Party with details of the migration. The 3rd Party would execute the order via a centralised database.

  o In the case of unauthorised transfers or a ‘slam’ then the customer would be compensated with a pre determined sum; as agreed by a 3rd Party Administrator and transferred back.
A4 Industry Questionnaire

Preparing a questionnaire for industry was challenging due to the number of different stakeholders and their different roles, objectives and priorities. The main purpose of the questionnaire was therefore to generate discussion and debate, thereby encouraging the industry representatives to attend the workshops as opposed to an exercise where we hoped to get quantitative responses which could be analysed and compared.

Introduction

Please note that this questionnaire is based on the migration industry briefing document dated 13th April 2007, issued by Ofcom and Deloitte. Please ensure you are familiar with this document prior to responding.

If you have any questions relating to this questionnaire please contact Kelly Macfarlane: kemacfarlane@deloitte.co.uk. Completed copies of the questionnaire should be emailed to Kelly Macfarlane as per the contact details above.

Your responses will not be disclosed in a way that identifies your organisation, but in order to ensure response data is representative of the UK telecoms market, we need to ask some questions about your organisation.

* 1. Please state the name of your organisation.

* 2. Please state which of the following retail services you provide today, or are planning to launch within the next six months.

(Circle all that apply)

- Wholesale broadband access (fixed or wireless)
- Fixed voice telephony
- Mobile voice/data
- VoIP
- Broadband (domestic)
- Broadband (Small/Medium Enterprise)
- Internet services (email, hosting, on-line transaction handling etc.)
- IPTV
- Other (please specify)

Please note this information is required solely for the purposes of ensuring that any migration solution is 'future proof' in terms of incorporating new products.

* 3. Please use the following rating scale to describe your organisation's preference for the consumer protection mechanisms outlined in the industry briefing document.

1= Strongly Agree, 2= Agree, 3=Neutral, 4=Disagree, 5=Strongly Disagree.

- Compensation and/or ‘Tiering’ Framework.
- Migration authorisation code generated at the point of switch.
- Single code mechanism.
- Centralised process as best exemplified in the utility industries.

Please give a brief explanation of your response.

* 4. Please use the following rating scale to describe the likely cost to your organisation of implementing the consumer protection mechanisms outlined in the industry briefing document.
1= Prohibitive, 2= Very High, 3=High, 4=Neutral, 5=Low.

- Compensation and/or ‘Tiering’ Framework.
- Migration authorisation code generated at the point of switch.
- Single code mechanism.
- Centralised process as best exemplified in the utility industries.

Please give a brief explanation of your response.

*5. Please use the following rating scale to describe your organisation’s opinion on the consumer benefit of implementing the consumer protection mechanisms outlined in the industry briefing document.

1= Very High, 2= High, 3=No perceived benefit, 4=Low benefit, 5=Less benefit than the current status quo.

- Compensation and/or ‘Tiering’ Framework.
- Migration authorisation code generated at the point of switch.
- Single code mechanism.
- Centralised process as best exemplified in the utility industries.

Please give a brief explanation of your response.

*6. To what extent do you agree that your current IT systems support the needs of customers migrating to or from your service from an alternative provider?

1. Strongly Disagree (IT present serious obstacles)
2. Disagree (IT presents significant obstacles)
3. Adequate (IT is neither an obstacle or enabler)
4. Agree (IT Systems is a significant enabler)
5. Strongly Agree (IT is a strong enabler)

*7. How would you describe the difference between the current migrations performance and the demand of your customers (internal and external)?

1. Failing expectations
2. Not meeting all expectations
3. Meeting expectations
4. Exceeding most expectations
5. Significantly exceeding expectations

*8. Which of these descriptions best describes your order management solution in terms of the extent to which it is ‘zero touch’ in triggering the product order, activation, customer equipment dispatch and billing?

1. Zero touch fully automated solution from order entry to customer billing
2. Mainly automated with some manual intervention required to progress and complete order
3. Significant manual intervention required to progress and complete order
4. Manual end to end process

*9. What in your opinion is the most effective customer validation mechanism in order to minimise mis-selling

1. Real time credit card/direct debit detail validation.
2. Personal identification number/single code
3. Other (Please specify)

Please give a brief explanation of your response.
*10. To what extent would you agree that data integrity at an industry wide level has a significant impact on the effectiveness of the migration process?

1. Strongly disagree (think it has minimal impact)
2. Disagree (do not think it is an issue)
3. Neutral (not aware that it is an issue or have not considered it to be)
4. Agree (think that it is a significant issue)
5. Strongly Agree (think that it is a major issue impacting the migration process.)

*11. What are your current published or approximate customer lead times for?

(Please answer for all that apply)

- Mobile migrations
- Fixed line voice migrations
- Broadband migrations

If they differ please state why.

*12. How would you describe the extent to which you are constrained in terms of system and process development relative to time, equipment, and people?

1. Very constrained (scarce resource)
2. Somewhat constrained (under resourced)
3. Neutral
4. Relatively unconstrained (resources are made available)
5. Unconstrained

*13. What is the average lead time for system development in your organisation?

1. Under 3 months
2. 3-6 months
3. 6-12 months
4. 12-18 months
5. >18 months

*14. Is the majority of your system development completed?

(Please circle)

- In house
- By 3rd Party contractors

*15. Is there a dedicated function/team within your organization that has responsibility for owning and managing the migrations process?

- Yes
- No

*16. How would you describe your operational model in terms of the extent to which you utilize 3rd parties to provide customer support?
1. All in-house (all systems and business processes are operated in-house)
2. Predominantly in-house (most business processes are operated in-house)
3. Mixed model (mix of in-house and systems and business processes)
4. Predominantly outsourced (most business processes are outsourced to 3rd parties)
5. All Outsourced (systems and business processes overwhelmingly provided by 3rd parties)

*17. What is the main channel of customer communications used in your organisation?

1. e-mail
2. letter
3. phone call
4. SMS text
5. Self Serve
6. Other – please state

*18. Do you current systems have an electronic order interface to order wholesale products?

(Tick all that apply)
- EMP
- LiSA
- ECO
- SPG
- Other customised solution (please specify)

*19. To what extent are these electronic interfaces integrated with your order management/entry systems?

No integration
Average (limited integration )
Full integration (i.e. seamless/‘zero touch’ order process)

*20. What is the current headcount size of your Order Management Team?

1. 1-10 FTE (Full time equivalents)
2. 10-20 FTE
3. 20-30 FTE
4. 30 -40 FTE
5. Over 40 FTE

*21. What are your top three sales channels for the acquisition of new customers? Please tick all that apply.

1. Internet
2. Inbound sales calls
3. Outbound sales calls
4. Retail outlet
5. Partnerships
6. Door to Door
7. Direct Mail
22. To what extent would you agree that customers should not have to contact their ‘losing’ provider should they decide to transfer their service to an alternative provider?

1. Strongly disagree (think it is essential critical that customer should contact losing provider)
2. Disagree (think customer should contact losing provider)
3. Neutral (no opinion; has no impact on your processes)
4. Agree (do not think that the customer should have to contact their losing provider)
5. Strongly Agree (think is it is essential that customer should be allowed to switch without contacting their losing provider.)

Please give a brief explanation of your response.

23. What does your organisation view as the top 3 barriers/obstacles for moving to a single migration process?

24. How would you describe the effectiveness of the current migration authorisation code process used for broadband and mobile products?

1. Excellent (has had a significant positive impact on facilitating the migration process)
2. Good (has had some impact on facilitating the migration process)
3. Neutral (no discernable positive or negative impact on facilitating the migration process)
4. Poor (little positive impact on facilitating the migration process)
5. Very Poor (no positive impact on facilitating the migration process)

Please give a brief explanation of your response.

25. To what extent would you agree that the authorisation code process as used in broadband and mobile migrations should be extended to cover other communications products?

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

26. How would you describe the cost implications to your organisation of extending the authorisation code process as used in broadband and mobile migrations to fixed line voice products?

1. High (significant development required)
2. Neutral (no significant impact)
3. Low (minor change request)
4. Very Low (little impact)

Please give a brief explanation of your response.

27. How would describe the cost implications to your organisation in terms of the development required in order to display a migration authorisation code on a customer bill?

1. High (significant development required)
2. Neutral (no significant impact)
3. Low (minor change request)
4. Very Low (little impact)
Please give a brief explanation of your response.

Other comment/feedback based on short list of migration proposed options.

**Contact Details**

Please provide your contact details below

* Please provide your Name

* Please provide your job title/function

* Please provide your email address

Please provide a contact telephone number

Thank you for taking the time to complete this questionnaire