



Addressing the local call disadvantage

Final statement on CPS same/adjacent-DLE calls

Issued: 30 July 2004

Contents

Section		Page
1	Summary	3
2	Background	7
3	Summary of analysis and proposals in June consultation	12
4	Responses to the consultation	20
5	Ofcom's final decision	37
Annex 1	Responses to the consultation	49
Annex 2	Direction	50
Annex 3	Glossary	58

Section 1

Summary

Background

1.1 Carrier Pre-Selection (CPS) is a mechanism that allows end-users to select, in advance, alternative Communications Providers to carry their calls without having to dial a prefix or install any special equipment at their premises. The end-user subscribes to the services of one or more CPS operators (CPSOs) and chooses the type of calls (e.g. all national calls) to be carried by them. The end-user may have a direct retail relationship with the CPSO, or may purchase the service via a CPS Reseller. The end-user is billed for these calls by the CPSO or CPS Reseller. CPS is a remedy to significant market power (SMP) in the call origination market, as set out in the Review of the fixed narrowband wholesale exchange line, call origination, conveyance and transit markets, published on 28 November 2003 (http://www.ofcom.org.uk/legacy_regulators/oftel/narrowband_mkt_rvw/fixednarrowbandstatement.pdf).

1.2 Since the introduction of the “all calls” CPS option in December 2001, usage of CPS has grown rapidly. As of 30 June 2004, there were 3,500,304 CPS lines in the UK. This means that approximately 12% of BT lines have CPS on them. In 2003, BT carried 68.3% of all calls, with 10% of all calls carried over some form of indirect access (Ofcom does not have separate figures for indirect access and CPS). Cable represents 13.4% of lines in the UK (4.7m lines) and 11.6% of all calls. This means that although slightly smaller CPS is comparable to cable as a source of retail competition to BT.

1.3 On 24 March 2004, BT announced plans to withdraw its standard residential line rental and its standard PSTN call prices and migrate existing customers paying standard rates to BT Together Option 1. In addition and at the same time BT announced changes to both the fixed line rental element and the call prices of the BT Together residential payment plans. This alteration to BT's retail prices exerted greater pressure on competing communications providers.

1.4 On 4 June 2004, Ofcom published a consultation document Addressing the local call disadvantage: A CPS Local Calls Option (the ‘June consultation’). This document examined the local call disadvantage and proposed a new CPS Local Calls Option as a remedy to the local call disadvantage. The consultation period for the June consultation closed on 5 July 2004.

Summary of analysis and proposals in the June consultation

1.5 In the June consultation, Ofcom identified that for calls that originated and terminated on the same DLE or adjacent DLEs which have a direct link between them, CPSOs experience a routing inefficiency known as ‘tromboning’. The impact of tromboning is that CPSOs suffer a cost disadvantage in handling local calls when compared to BT (the ‘local call disadvantage’).

1.6 Ofcom considered that there was a significant cost disadvantage to CPSOs in carrying same-DLE and adjacent-DLE calls even where CPSOs had built out to BT's DLEs, and that this disadvantage was the result of an intrinsic characteristic of the

interconnection model. Ofcom also considered that, as BT's retail call charges continue to move towards cost, CPSOs would be unable to compete in the local calls market, or even the national calls market, with the likely negative impact on competition in these markets.

1.7 In the June consultation, Ofcom considered a range of options, including doing nothing; imposing cost-based wholesale end-to-end calls; and a CPS Local Calls Option, i.e. where same/adjacent-DLE calls would be routed end-to-end on BT's network where CPSOs had interconnected to the specific DLE.

1.8 Ofcom carried out a regulatory impact assessment (RIA) on these options, and concluded that the most appropriate remedy to the local call disadvantage was to require BT to offer a CPS Local Calls Option to DLE-interconnected CPSOs. Ofcom considered that this option would enable DLE-interconnected CPSOs to compete with BT in the provision of local calls and that smaller CPSOs would be able to benefit indirectly via commercial agreements with CPSOs that did interconnect with BT's DLEs.

1.9 Therefore, Ofcom proposed to modify the CPS Functional Specification for BT to create two new CPS subscriber options, i.e. Option 4 – all calls except local calls and Option 5 – local calls.

Responses to the June consultation

1.10 Ofcom received 12 non-confidential responses to the consultation Addressing the local call disadvantage. The responses are discussed in detail in section 4.

1.11 In general there was broad support for Ofcom's identification of a local call disadvantage and proposal that this disadvantage should be dealt with by Ofcom. There was also general agreement with Ofcom's proposals for:

- calculating the ongoing price and interim adjustment of the local call product;
- the definition of DLE-interconnection;
- product development plans and timescales; and
- cost recovery.

1.12 However, most respondents disagreed with Ofcom's proposals to give effect to these policy proposals by introducing two new CPS subscriber options in order to implement the CPS Local Calls Option. These respondents stated that this solution was overly complex, time consuming and expensive, and that the same result could be achieved by having two routing options within the "all calls" CPS subscriber option and allowing transit arrangements between DLE-interconnected CPSOs and smaller CPSOs.

1.13 The views of respondents were divided on the issue of whether Ofcom should address the local call disadvantage for indirect access (IA) local calls in the same way. BT stated that an IA variant of the local call product would not be possible for technical reasons and that it saw no barriers to providers migrating IA customers to CPS. However, several CPSOs stated that there were barriers to migration as there was no efficient industry agreed process. These CPSOs stated that an IA variant of the local calls product should be developed and that there should also be an interim adjustment for IA local calls.

Ofcom's final decision

1.14 Following the RIA and responses to the consultation, Ofcom considered that it should require BT to implement a CPS local calls option for DLE-interconnected CPSOs. However, Ofcom also accepted the view of the majority of respondents on how the policy solution to the local call disadvantage should be implemented. That is, Ofcom considers that BT should offer two network routing options to CPSOs within the "all calls" CPS subscriber option, rather than implement two new CPS subscriber options as initially proposed by Ofcom. These two routing options should be:

- the current routing arrangement, i.e. all CPS traffic handed over to the CPSO at the point of connection; and
- a new routing option that routes a subset of calls end-to-end on BT's network and continues to route all other calls according to the CPSO's routing plan. The subset of calls to be routed end-to-end on BT's network are those that are originated and terminated on the same DLE or originated on one DLE and terminated on an adjacent directly-connected DLE. These will henceforth be referred to as SAD (Same/Adjacent-DLE) calls.

1.15 Ofcom considers that the new SAD call routing option must be available for selection by CPSOs on a DLE by DLE basis. It must only be available where the CPSO is interconnected to the DLE on which a call originates, where this interconnection is configured to carry CPS traffic, and where substantially the remainder of this CPS traffic is handed over at the DLE.

1.16 Ofcom considers that the use of transit arrangements between DLE-interconnected and smaller CPSOs is likely to enable the benefits of the SAD call routing option to be passed on throughout the value chain. Such arrangements should allow smaller CPSOs to make efficient use of their existing networks and benefit indirectly from the SAD call routing option on a commercial basis without the necessity of building their networks out to BT's DLEs.

1.17 Ofcom is modifying a direction to amend the CPS Functional Specification for BT. These amendments require the availability of the SAD call routing option and allow for transit arrangements to be made between CPSOs.

1.18 Ofcom has also set out the methodology for calculating the wholesale call charges for calls routed using the SAD call routing option. Ofcom considers that DLE-interconnected CPSOs should be charged on the same basis as BT Retail. In addition, Ofcom considers that BT should pay an interim adjustment to DLE-interconnected CPSOs that compensates for the tromboning effect as if the new SAD call routing option was in place. Ofcom has set out the methodology for calculating this interim adjustment. Ofcom understands that this adjustment will be provided by way of a credit note redeemable against CPS charges.

1.19 On the issue of cost recovery, Ofcom considers that the development costs of the SAD call routing option should be recovered by adding them to the existing CPS pence-per-minute surcharge.

1.20 Additionally, with regards to more detailed implementation issues, Ofcom considers that:

- BT should bill for the SAD call routing option using the GenIUS billing platform, i.e. the same billing platform as used for WLR;

- BT should supplement its existing NIPP data with information on directly-connected DLEs by the end of August 2004 to allow for CPSOs to validate the interim adjustment;
- the SAD call routing options should be substantially in place by the end of the first quarter of 2005; and
- the development of the SAD call routing option should be overseen by a working group including BT, Ofcom and CPSOs.

Section 2

Background

History of CPS

2.1 Carrier Pre-Selection (CPS) is a mechanism that allows end-users to select, in advance, alternative Communications Providers to carry their calls without having to dial a prefix or install special equipment at their premises. The end-user subscribes to the services of one or more CPS operators (CPSOs) and chooses the type of calls (e.g. all national calls) to be carried by them. The end-user may have a direct retail relationship with the CPSO, or may purchase the service via a CPS Reseller. The end-user is billed for these calls by the CPSO or CPS Reseller.

2.2 The terms CPSO, CPS Reseller, CPS Provider, WLR Provider and Communications Provider are used throughout this document. In the context of this document, a "CPSO" is a provider of a public Electronic Communications Network that interconnects with BT's network, and that has put in place the necessary functionality on its own network, and has arranged to have the necessary functionality put in place on the BT network, to allow BT customers to subscribe to CPS services provided by means of that operator's network. The CPSO may sell CPS services directly to BT customers. Alternatively, a "CPS Reseller" may have a commercial agreement with a CPSO that allows the CPS Reseller to sell CPS services to BT customers, with the CPS call traffic being carried on the CPSO's network. Where appropriate, CPSOs and CPS Resellers are for the purpose of this final statement only collectively referred to as "CPS Providers". A "WLR Provider" is a provider of wholesale line rental (WLR) services to end-users. A "Communications Provider" is a provider of electronic communications networks and/or services, and therefore is a generic term to capture all types of provider, including CPSOs, CPS Resellers, CPS Providers and WLR Providers.

2.3 On 3 October 1998 EC Directive 98/61/EC ("the Amending Interconnection Directive") came into force. This directive required CPS to be made available throughout the European Union from 1 January 2000. In December 1999, the European Commission granted the UK a deferment of three months on the 1 January deadline.

2.4 In the UK, interim CPS was introduced in April 2000. Interim CPS used auto-diallers to route calls for end-users as BT's switches could not be upgraded to enable switch-based CPS within the EC's deadline of 1 April 2000. Permanent CPS (i.e. switch-based CPS) was introduced in two phases. CPS for international and national calls was introduced on 12 December 2000. CPS for international, national, international and national, or "all calls" (see explanation at paragraph 2.10) was introduced on 12 December 2001.

2.5 A new regulatory framework for electronic communications networks and services entered into force on 25 July 2003; which in effect replaced the previous CPS legal framework. The basis for the new regulatory framework is five new EU Communications Directives. Four of these Directives have been implemented in the UK via the new Communications Act 2003 (the "Act"). The fifth Directive was implemented by Regulation which came into force on 11 December 2003. The new Directives require National Regulatory Authorities (NRAs) such as the Office of Communications (Ofcom) and previously the Director General of

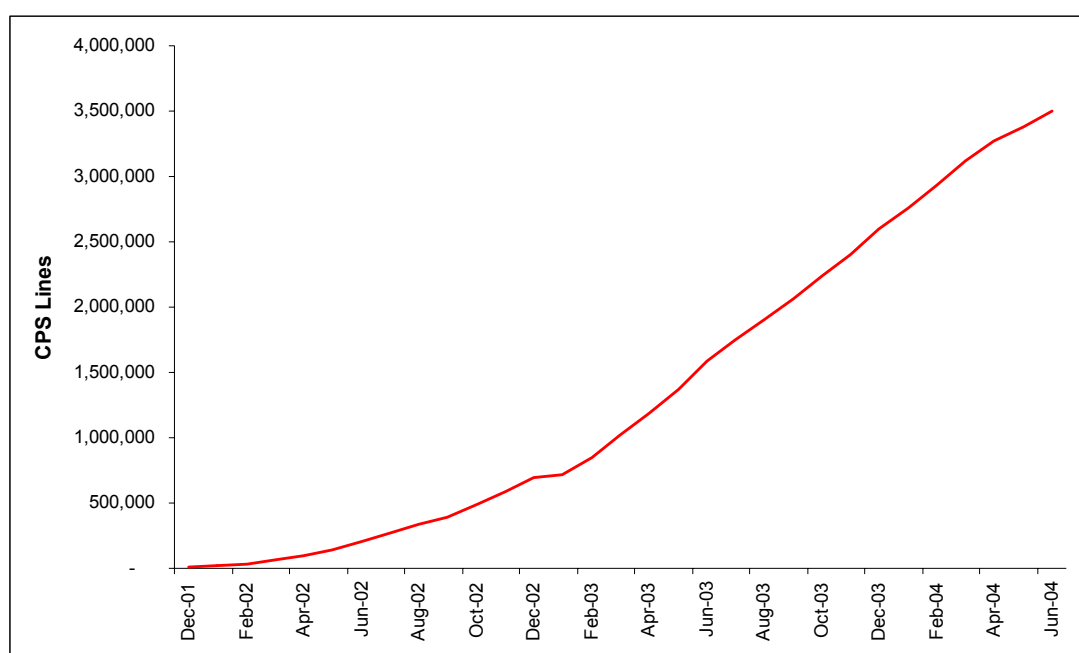
Telecommunications (referred to in this document as the Director or Oftel) to carry out reviews of competition in communications markets to ensure that regulation remains appropriate in the light of changing market conditions.

2.6 Although the new regulatory framework entered into force on 25 July 2003, Ofcom did not assume full functions under the Act until 29 December 2003. Accordingly, transitional arrangements were put in place to enable the Director to carry out certain functions. Therefore, references in this document to Ofcom are to be read as references to Director where he exercised his powers under the Act prior to the 29 December 2003.

2.7 Consequently, the Director carried out (among other market reviews) a “Review of the fixed narrowband wholesale exchange line, call origination, conveyance and transit markets”. The Director published his conclusions to this market review on 28 November 2003, which included the findings that BT has SMP in the fixed call origination market. As a consequence of the market review, an SMP service condition was imposed on BT requiring it specifically to provide CPS, in addition to its obligation to provide Network Access. Specifically, SMP service condition AA8.1 states that BT shall provide CPS as soon as it is reasonably practicable on reasonable terms in accordance with the Carrier Pre-selection Functional Specification to any of its Subscribers upon request.

2.8 Since its introduction, usage of CPS has grown rapidly. As of 30 June 2004, there were 3,500,304 CPS lines in the UK. This means that approximately 12% of BT lines have CPS on them. In 2003, BT carried 68.3% of all calls, with 10% of all calls carried over some form of indirect access (Ofcom does not have separate figures for indirect access and CPS). Cable represents 13.4% of lines in the UK (4.7m lines) and 11.6% of all calls. This means that although slightly smaller CPS is comparable to cable as a source of retail competition to BT.

Figure 1 – Growth of CPS



How CPS works

2.9 End-users can have a contract either with a CPSO or a CPS Reseller. From the end-user's point of view the process works the same way regardless of whether their contract is with a CPSO or a CPS Reseller. However, if the end-user's contract is with a CPS Reseller the calls will still be carried by a CPSO with whom the CPS Reseller has a commercial agreement.

2.10 There are currently three different call options for CPS, i.e. the types of calls an end-user can opt to take from a CPSO or CPS Reseller. These are:

- option 1: international calls;
- option 2: national calls, i.e. geographic domestic calls outside local calling areas;
- option 3: all calls (including international, national, local, mobile, non-geographic (e.g. freephone, local rate, national rate), premium rate, personal, paging and 118XXX codes for Directory Enquiry Facilities).

2.11 An end-user can choose any one of the three options on a particular line. An end-user can also choose option 1 and option 2 on the same line. If he or she chooses option 1 and option 2 on the same line, the end-user can choose different CPSOs for each option or one CPSO for both options. As option 3 is for all calls it cannot be combined with either of the other two options. (NB CPSOs and CPS Resellers are not obliged to offer all three options).

2.12 An end-user can over-ride the CPS service at any time, and use a different Indirect Access (IA) provider, by dialling a four- or five-digit IA prefix before the number they wish to dial, as long as they have an agreement with the IA provider to whom the prefix code belongs. Additionally, the end-user can override CPS and use BT to make calls by using the prefix 1280 on a call-by-call basis.

2.13 In order to carry calls CPSOs interconnect with BT at various points of connection. They pick up calls originating on BT's network and pay a cost-based charge for this service – called call origination. The CPSOs may either terminate the call themselves (if the CPSO has any directly connected customers) or may hand the call over to a Terminating Communications Provider (TCP) for termination and pay an appropriate termination charge to the TCP. As the CPSOs own the retail relationship with the end-user they can set retail prices as they wish. As BT's retail prices for calls have been historically well above cost, CPSOs and CPS Resellers have been able to undercut BT's retail prices substantially, and still make a positive margin on most call types.

Relationship of CPS to WLR

2.14 Wholesale line rental (WLR) is a product that BT is obliged to provide to other Communications Providers. It enables other Communications Providers to offer both line rental and calls to end-users over BT's local network. This usually means that the end-user no longer has a contractual relationship with BT and is billed solely by the WLR Provider.

2.15 In August 2002, the Director modified BT's licence to make provision of WLR a regulatory obligation. The Director confirmed BT's obligations to provide WLR in the Review of the fixed narrowband wholesale exchange line, call origination,

conveyance and transit markets, published on 28 November 2003. In accordance with its licence obligations, BT introduced a basic WLR product (WLR1) at the beginning of September 2002. On 29 March 2004, BT launched WLR2 – a more automated product designed for mass market introduction.

2.16 WLR is relevant to this discussion as BT is placing increased emphasis on retail service bundles such as BT Together, which bundle calls and access (see paragraphs 2.18 to 2.22). WLR providers are able to respond to this in a manner that 'pure' CPSOs cannot, by providing competing service bundles. They can do so either by purchasing line rental and calls from BT, or purchasing line rental from BT and calls from a CPSO. The WLR provider may also be a CPSO and therefore purchase line rental from BT and route calls over its own network. WLR providers are likely to have an increasing role in determining how calls are routed at the wholesale level, and this will be an important driver of CPS.

2.17 There are currently 235 service providers offering WLR in the UK. As of 25 June 2004, the total number of WLR lines was 487,382.

BT's response to increasing retail competition

2.18 On 24 March 2004 BT announced plans to withdraw its standard residential retail line rental and its standard PSTN call prices and migrate existing residential customers paying standard rates to BT Together Option 1. In addition and at the same time BT announced changes to both the fixed line rental element and the call prices of the BT Together residential payment plans. The new pricing on BT Together Option 1, and the migration of customers paying standard rates, was introduced on 1 July 2004. The new pricing on BT Together Options 2 and 3 was introduced on 1 April 2004.

2.19 BT stated in its press release of 24 March 2004 announcing the price changes that: "These changes demonstrate our intention to meet head-on the twin challenges of carrier pre-selection and wholesale line rental, and overcome them."

Table 1 – Summary of BT's retail price changes

	BT Together Option 1 (the hour plan)+	BT Together Option 2 (the evening and weekend plan)	BT Together Option 3 (the anytime plan)
	£10.50 per month (previously £11.50)	BT Together Option 1 + £6.00 i.e. £16.50 per month (previously £17.50)	BT Together Option 1 + £15.00 i.e. £25.50 per month (previously £28.50)
Evenings and Weekends	5.5p for up to an hour 1p/minute thereafter	No call charge for up to an hour 1p/minute thereafter	No call charge for up to an hour. 1p/minute thereafter
Daytime	3p/minute 5p minimum call charge applies	3p/minute 5p minimum call charge applies	No call charge for up to an hour. 3p/minute thereafter

* Charges are based on payment of bill by direct debit or monthly payment plan.

2.20 The increase in the line rental and effective reduction in the cost of calls to the end-user represents a rebalancing of the tariff. Historically line rental has been subsidised by call charges, and rebalancing removes this cross subsidy, bringing

charges more in line with costs. As a matter of general principle, cost-reflective charges are beneficial, and so rebalancing would normally be welcomed.

2.21 A particular benefit of rebalancing is that it should improve the ability of Communications Providers to use WLR to compete in the retail market for narrowband access. Historically WLR was not an attractive residential retail proposition, as the cost-based charge to the WLR provider for line rental is £10.86 pcm (including VAT) compared to BT's retail price for standard line rental which was £9.49 pcm (including VAT). As BT's minimum line rental is now BT Together Option 1 at £10.50 pcm (including VAT), this partial rebalancing will make WLR providers' proposition more viable.

2.22 It was clear from BT's press announcement of 24 March 2004 that these price changes were a direct reaction to increasing competition to BT in the retail lines and calls markets. Ofcom does not consider that there is anything wrong with intensified retail competition, as long as it is fair. Indeed, increased competition is beneficial for consumers, as long as it is sustainable. The concern in this area was that competition might not be sustainable, at least for particular call types. That is, international calls are very profitable but limited to a niche market. Local and national calls are much less profitable, but make up the bulk of calls made in the residential sector. Local calls represent a particular problem for alternative Communications Providers, as can be seen in the following sections.

Consultation on addressing the local call disadvantage

2.23 On 4 June 2004, Ofcom published a consultation document Addressing the local call disadvantage: A CPS Local Calls Option (the 'June consultation'). This document examined the local call disadvantage and proposed a new CPS Local Calls Option as a remedy to the local call disadvantage. The consultation period for the June consultation closed on 5 July 2004. The following sections of this document summarise the proposals contained in the June consultation; examine the responses by BT and other communications providers; and set out Ofcom's final decisions on remedying the local call disadvantage.

Section 3

Summary of analysis and proposals in June consultation

3.1 This section summarises Ofcom's analysis and proposals set out in the June consultation.

Local call disadvantage

3.2 For calls that are originated and terminated on the same BT local exchange (DLE) or adjacent BT DLEs which have a direct link between them, CPSOs experience a routing inefficiency known as 'tromboning'. The impact of tromboning is that CPSOs suffer a cost disadvantage in handling local calls when compared to BT (the "local call disadvantage").

3.3 The CPS Functional Specification required all CPS calls to be routed via a CPSO network. However, most fixed calls originate and terminate on BT's network. When a BT customer makes an own-DLE call it is routed in this way:

- the call is originated and carried to the BT DLE – this is called Local Exchange Call Origination (LECO); and
- the DLE routes the call to the correct local destination – this is a form of Local Exchange Call Termination (LECT), but as the call has already been switched as part of LECO, this form of LECT does not need to include a further switching stage. This form of LECT is referred to as the LECT 'stick'.

3.4 When a CPS customer makes a local call it is routed in this way:

- the call is originated and carried to the DLE as above;
- the DLE then routes the call to the appropriate CPSO's nearest tandem switch – this equivalent to Local to Tandem Conveyance (LTC);
- the CPSO's tandem switch routes the call back to the same DLE using a service equivalent to BT's LTC Stick; and
- the call is then routed to the correct destination by LECT.

3.5 A similar inefficiency exists for adjacent DLE calls where there is a direct link between the DLEs.

3.6 The tromboning effect described above means that it costs CPSOs more to carry a local call than BT. This additional cost comprises:

- outpayments by the CPSO to BT for the use of their network, i.e. PPP and the use of the local exchange processor for a second time; and
- additional costs incurred by the CPSO within their own network due to the routing inefficiency, i.e. the cost to the CPSO of routing the call from the DLE to its own tandem exchange and back to the DLE.

3.7 In the June consultation, Ofcom quantified the local call disadvantage as the CPSO paying:

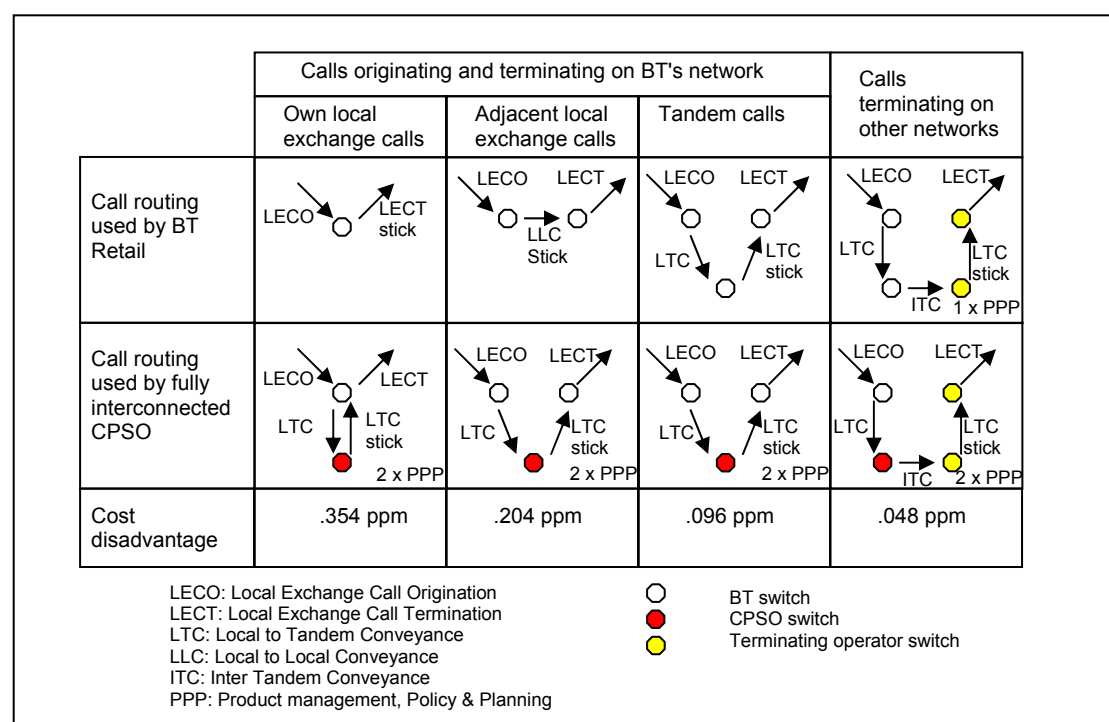
- 0.354 pence per minute (ppm) more than BT for an own local exchange call; and
- 0.204 ppm more than BT for an adjacent local exchange call.

3.8 Ofcom quantified the cost to BT of carrying an own-DLE call as 0.346 ppm; compared to 0.7 ppm for a CPSO, i.e. the network costs faced by CPSOs are double those faced by BT.

3.9 As can be seen from the above there is a significant cost disadvantage to CPSOs in carrying own local exchange and adjacent local exchange calls, and this disadvantage is the result of an intrinsic characteristic of the interconnection model.

3.10 Ultimately, as BT's retail call charges continue to move towards cost, CPSOs will be unable to compete in the local calls market. CPSOs would be unlikely to offer a national calls service that excluded local calls. The likely outcome would be a niche residential market for CPSOs selling into the more profitable but much smaller international calls market. International calls make up only 1.5% of total calls by volume and only 3.9% of total call revenues. This would mean that there would be no competition by means of CPS for the majority of the residential market.

Figure 2 – Summary of the local call disadvantage



Proposals for addressing the local call disadvantage

3.11 In the June consultation, Ofcom considered a range of options to address the local call disadvantage:

- option 1 – do nothing;
- option 2 – cost-based wholesale end-to-end calls; and

- option 3 – CPS Local Calls Option.

3.12 Regarding Option 1, Ofcom's initial view was that it would be failing its obligations to encourage competition in relevant markets if it took no action.

3.13 Regarding Option 2, Ofcom considered that cost-based wholesale end-to-end calls would address the local call disadvantage as Communications Providers would essentially be reselling the same wholesale service that is available to BT Retail. However, Ofcom's initial view was that Option 2 would not be an appropriate remedy as:

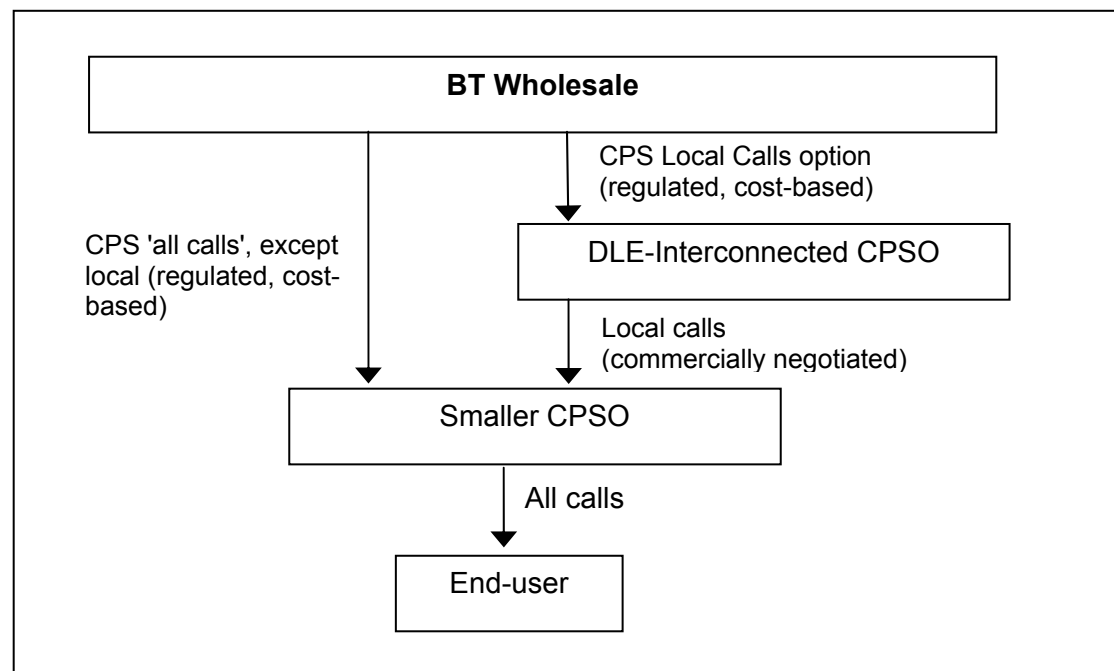
- it would require Ofcom to impose a formal obligation on BT to set cost-based charges across a wide range of call types, including those where no problem has been identified;
- it would be a major new regulatory intervention by Ofcom at a point in time when there was little evidence that the existing remedy, i.e. CPS, had failed;
- several CPSOs have invested in network infrastructure in order to interconnect with BT's DLEs. Cost based wholesale end-to-end calls would penalise these operators and provide a major disincentive to future network infrastructure investment; and
- wholesale end-to-end calls provide little potential for service innovation.

3.14 Ofcom considered that Option 3 – a CPS Local Calls Option – was the most appropriate remedy to the local call disadvantage. A wholesale CPS Local Calls Option would provide a new routing option for all calls that BT does not route to the tandem layer. A CPSO would be able to buy call origination in relation to these calls, but instead of being routed via the CPSO's network, BT would terminate the calls, and charge the CPSO for a service bundle comprising local exchange call origination and local exchange call termination. That is, BT would make available to CPSOs the same 'stick' services available to BT Retail.

3.15 Ofcom proposed that this product would only be available to CPSOs for those calls that originate on those DLEs to which they interconnect. It would not be available on those DLEs to which the CPSO was not interconnected. It would also not be available to CPSOs that interconnected only at the DMSU level.

3.16 Ofcom considered that the CPS Local Calls Option would enable larger DLE-interconnected CPSOs, i.e. those that have invested in reach and scale, to compete with BT in the provision of local calls. Ofcom also considered that smaller CPSOs would be able to benefit from the CPS Local Calls Option, but indirectly and on a commercial basis, by purchasing wholesale services from those CPSOs who do interconnect with BT's DLEs. The diagram below sets out an example of the type of supply chain that Ofcom envisaged being established.

Figure 3 – Value chain for local calls CPS option



Implementation issues

3.17 In the June consultation, Ofcom identified a number of implementation issues that needed to be resolved in order to establish a CPS Local Calls Option as described above.

Modifications of the CPS Functional Specification

3.18 The CPS condition (AA8) requires CPS to be provided at the request of any customer and that relevant wholesale interconnection facilities are provided to CPSOs on reasonable terms and in accordance with the CPS Functional Specification. The CPS Functional Specification establishes certain technical and other principles in order to enable the efficient implementation of CPS.

3.19 On 28 November 2003, the Director made a direction setting out the CPS Functional Specification as part of the Review of the fixed narrowband wholesale exchange line, call origination, conveyance and transit markets. This CPS Functional Specification of 28 November 2003 applies to both BT and Kingston Communications.

3.20 Ofcom identified in the June consultation that the introduction of a local calls option would require modifications to BT's CPS Functional Specification. Therefore, Ofcom consulted on a draft direction to the CPS Functional Specification for BT by adding two new CPS options and defining the routing of calls under the local calls CPS option.

3.21 The 28 November CPS Functional Specification refers to three CPS options:

- Option 1 – international calls;
- Option 2 – national calls; and

- Option 3 – all calls (including international, national, local, mobile, non-geographic (e.g. freephone, local rate, national rate), premium rate, personal, paging and 118XXX codes for Directory Enquiry Facilities).

3.22 In the June consultation, Ofcom proposed the addition of two further CPS options to this list:

- Option 4 – all calls except local calls (but including international, national, mobile, non-geographic (e.g. freephone, local rate, national rate), premium rate, personal, paging and 118XXX codes for Directory Enquiry Facilities); and
- Option 5 – local calls.

3.23 Paragraphs 17-20 of the CPS Functional Specification describe the routing of calls by CPS. Ofcom's initial view was that it needed to amend these paragraphs to give effect to the CPS local calls option. The proposed amendments to BT's CPS Functional Specification were set out in the draft direction at Annex 4 of the June consultation. That is, Option 5 would require BT to route own-DLE and adjacent-DLE calls over its network, with other calls routed like any other CPS call, i.e. to the CPSO to an agreed point of connection.

What counts as DLE-interconnection

3.24 Ofcom considered that it was essential that it clarified what would count as DLE interconnection. It would not be efficient for many CPSOs to interconnect to many DLEs using their own fibre. Therefore, Ofcom considered that the leasing of capacity should also qualify as DLE interconnection. Ofcom explained that it believed that this would drive efficient infrastructure investment.

3.25 Therefore, Ofcom considered that there were at least three scenarios where a CPSO should be regarded as interconnecting to a DLE in a manner that would qualify for the CPS Local Calls Option:

- using their own fibre, i.e. In-Span Interconnect (ISI);
- leasing someone else's fibre, i.e. third-party ISI; and/or
- leasing the underlying 2Mbit/s interconnection circuit from BT, i.e. a Customer Sited Interconnect (CSI), Interconnection Extension Circuit (IEC) or an Intra Building Circuit (IBC).

Applicability to indirect access (IA)

3.26 Ofcom considered that CPSOs treat indirect access (IA) and CPS interchangeably, and therefore that there was a reasonable case that the CPS Local Calls Option should also apply to IA or that an alternative solution should be identified.

3.27 However, Ofcom understood that there may be technical difficulties in extending the product to cover IA, e.g. the difference in the validation process for calls between CPS and IA. BT had also suggested that the volume of local calls carried using IA may be low, although a number of CPSOs had informed Ofcom that they are carrying significant volumes of IA local calls.

3.28 Ofcom considered that it was necessary to take into account not only the technical difficulties, but also the volume of IA local calls, the delayed implementation of CPS and the absence of an efficient, industry-agreed IA to CPS migration process.

Product development

3.29 In the June consultation, Ofcom proposed that the development of the CPS Local Calls Option would be carried out by BT Wholesale. Ofcom expected that the product should be launched by the end of 2004, preferably earlier, and that BT Wholesale would be required to produce a development timetable on that basis.

3.30 Ofcom considered that there would be significant benefits in CPSOs being closely involved in the development of this product to ensure that functionality such as billing, fraud detection, gateways and so on is implemented in a way that is reasonable for both BT and CPSOs. Ofcom's initial view was that this detailed work (including a range of process and IT automation issues) should be carried out in the context of the existing industry groups.

The price for the product

3.31 In the June consultation, Ofcom stated that the ongoing call charges for the CPS Local Calls Option should be the same as the cost-based transfer charge made to BT Retail for such calls. Additionally, in the interim between 1 July 2004 and the launch of the CPS Local Calls Option, Ofcom considered that BT should adjust the amount DLE-interconnected CPSOs are charged to address the local call disadvantage as if the CPS Local Calls Option were in place. Therefore, DLE-interconnected CPSOs would in effect be compensated for both the difference in outpayments and the costs that they incurred on their own networks due to the tromboning inefficiency until such time as BT introduces the CPS Local Calls Option.

Ongoing price of the product

3.32 On the basis of BT's cost orientation and no undue discrimination obligations in the call origination market, Ofcom considered that DLE-interconnected CPSOs that take up the CPS Local Calls Option should be charged on the same basis as BT Retail. That is, the CPSO should be charged:

- for same-DLE calls for LECO and the LECT stick; and
- for adjacent-DLE calls for LECO, LLC Stick and LECT.

Interim adjustment of CPSO costs

3.33 In its announcement of 13 May 2004, BT stated that until the CPS Local Calls Option was launched interim arrangements would be put in place from 1 July 2004. These interim arrangements will adjust the amount that DLE-interconnected CPSOs are charged to compensate for the tromboning effect as if the new CPS Local Calls Option was in place.

3.34 Ofcom considered that this adjustment should address the total local call disadvantage and not just that part of the disadvantage which relates to the outpayments to BT. For example, BT should adjust the charges to CPSOs so that they face the same cost that they would face if each own-local exchange call was using only LECO and LECT stick. Ofcom considered that BT's local tandem

conveyance (LTC) costs should be used as a proxy for the costs of a reasonably efficient CPSO in calculating the adjustment for the tromboning of the call.

3.35 Ofcom considered that this adjustment will redress the local call disadvantage in the short term in the absence of the CPS Local Calls Option. Ofcom also considered that it will provide BT with an incentive to deliver the product as soon as practicable.

3.36 BT had stated that it hoped to calculate the interim adjustment by using offline rating of actual call data records (CDRs). However, BT had said that if this was not feasible, statistical methods would be used to develop the traffic volumes against which the relevant prices would be applied. Any statistical methodology would be based on a monthly sample of BT's retail traffic data (for call profiling) and actual billable interconnect minutes with the relevant CPSO.

Cost recovery

3.37 Ofcom expected that each element of cost of the CPS Local Calls Option would fall into one of four categories of cost identified in BT's CPS SMP Condition, namely: System Set-up Costs, Per Operator Set-up Costs, Per Operator Ongoing Costs, and Per Customer Line Set-up Costs. Ofcom considered that the vast majority of costs will be system set-up costs, and expected BT to provide detailed breakdowns to Ofcom of any costs BT incurs, whether system set-up or otherwise. The six principles of cost recovery have already been used by the Director to decide how these four different categories of CPS-related costs should be recovered, and this is captured in BT's CPS SMP Condition, i.e. Condition AA8.

3.38 As with other CPS system set-up costs, Ofcom considered that system set-up costs for the local calls product should be recovered by means of a pence-per-minute surcharge on all BT-originated "Relevant Calls", i.e. all calls which originate on BT's network and that are of a type that are available for selection in accordance with the CPS Functional Specification. There is already an existing pence-per-minute surcharge by means of which BT is recovering BT's previous CPS system set-up costs. Ofcom considered that the system set-up costs for the CPS Local Calls Option should be added to the costs to be recovered by means of this existing surcharge.

Practicalities of DLE interconnection

3.39 The proposals outlined above were based on the underlying assumption that there was no barrier other than scale to DLE interconnection. However, Ofcom was aware that there were potentially a number of outstanding issues in relation to interconnection. Ofcom stated that these issues may need to be addressed if the proposed solution is to be successfully implemented.

3.40 These issues include:

- the availability of Signalling Transfer Point (STP) signalling, which may be essential for efficient interconnection with a large number of DLEs;
- the availability of overflow on DLE routes. Typically BT links each DLE to three different tandem exchanges, and this availability of overflow allows higher utilisation of capacity;
- planning rules for DLE routes, i.e. the rules in relation to 'fully provisioned' and 'high usage' interconnect routes equivalent to the planning rules adopted internal to BT's network; and

- forecasting – the ACO forecast means that interconnect capacity must be predicted nine months in advance. Ofcom considered that this period should be reduced, particularly for simple augmentation of capacity on existing routes.

3.41 The consultation document did not propose solutions for these issues. However, Ofcom expected these issues to be addressed and stated that it would take action to ensure that they are if necessary. Ofcom noted that BT has undertaken to address these issues in developing the CPS Local Calls Option.

Section 4

Responses to the consultation

4.1 This section assesses and discusses the responses Ofcom received to the consultation and sets out Ofcom's views on these responses.

Identifying and quantifying the local call disadvantage

4.2 In Section 3 of the June consultation, Ofcom identified and provided a methodology for quantifying the local call disadvantage. Ofcom asked the following questions:

Question 1: Do you agree with Ofcom's identification of the local call disadvantage? And do you agree with the methodology used to quantify of the local call disadvantage?

BT's view

4.3 In its response to the June consultation BT stated that it broadly agreed with Ofcom's analysis of the interconnection differential for local calls. BT also stated that it supported Ofcom's intention to address the network interconnection issue rather than retail pricing.

4.4 BT also agreed with Ofcom's quantification methodology. It noted that the component charges used by Ofcom were a little out of date, and provided the latest charges as set out in BT's ACCNs 447 to 450.

Other communication providers' views

4.5 Cable & Wireless (C&W), Caudwell Communications, Centrica Telecom, Energis, Gamma Telecom, Kingston Communications, Opal Telecom, Thus and Your Communications all agreed that Ofcom had correctly identified the local call disadvantage and broadly agreed with the methodology Ofcom used to quantify it.

4.6 In addition, Energis stated that for implementation the local call disadvantage should be calculated using the latest current cost accounting numbers. Similarly, Caudwell stated that it would be helpful to see fully updated costs for the current year to understand the current scale of the disadvantage.

4.7 Opal Telecom also noted that it assumed that there would be no additional cost to DLE-interconnected CPSOs by way of CPS transaction charges or other CPS or network charges not paid by BT Retail.

4.8 C&W and Your Communications both noted that Ofcom had used BT's conveyance charges as a proxy for the costs incurred by CPSOs in carrying the calls on their own network. C&W noted that BT's charges would not be the same as the costs of a reasonably efficient CPSO due to economies of scale. However, C&W stated that – due to the difficulties in identifying the costs of individual CPSOs – Ofcom's proposals was a good pragmatic solution.

4.9 Telewest disagreed with Ofcom's identification of the local call disadvantage. Telewest stated that "the very fact that other networks exist means there is an externality to all types of calls which is the routing of the call out of the BT network." Telewest stated that Ofcom should not seek to be compensating and rectifying a series of investment decisions by CPSOs.

Ofcom's view and final decision

4.10 Ofcom is pleased that nearly all the respondents to the consultation agreed with Ofcom's identification of and methodology for quantifying the local call disadvantage.

4.11 With regards to Telewest's comments, Ofcom considers that CPS is the only viable form of competition for voice telephony that is available to all UK consumers. Cable networks only pass 50% of the homes in the UK; Telewest's cable network only passes 20% of the homes in the UK. If CPSOs were forced to exit the market, then many consumers would have no choice of supplier.

4.12 More generally, CPSOs are an important source of competition to BT. UK geographic calls originated on cable networks comprise only 13.9% of total UK geographic calls; whereas calls originated by IA or CPS comprise 16.1% of total UK geographic calls.

4.13 Ofcom also disagrees with Telewest's assertion that the local call disadvantage is the result of a "series of investment decisions by CPS operators". As noted in the June consultation, Ofcom considers that "this disadvantage is the result of an intrinsic characteristic of the interconnection model. Even a CPSO which interconnects at all BT's local exchanges, the largest viable extent of network build, would face this cost disadvantage" (3.22).

Proposal for a CPS Local Calls Option

4.14 In Section 4 of the June consultation, Ofcom carried out a Regulatory Impact Assessment that identified three options: Option 1 – do nothing; Option 2 – cost-oriented wholesale end-to-end calls; and Option 3 – a CPS Local Calls Option available to DLE-interconnected CPSOs. Ofcom proposed that Option 3 was the most appropriate and proportionate response. Ofcom asked the following questions:

Question 2: Do you agree with Ofcom's initial view that Option 3 – a CPS Local Calls Option available to DLE-interconnected CPSOs – is the most appropriate response to the local call disadvantage? If not, which of the other options – or what option not identified by Ofcom – do you believe would be more appropriate?

BT's view

4.15 BT supported Ofcom's conclusion that Option 3 – a CPS Local Calls Option available to DLE-interconnected CPSOs – was the most appropriate and proportionate solution to the problem identified.

4.16 BT noted that doing nothing was no longer tenable and that the imposition of regulated wholesale end-to-end calls would prejudice the Strategic Review of Telecommunications and would also have a dramatic negative impact on past and future network investment.

Other communication providers' views

4.17 In their responses, C&W, Caudwell Communications, Centrica Telecom, Energis, Gamma Telecom, Kingston Communications, Opal Telecom, Thus and Your Communications all agreed that Option 3 in Ofcom's regulatory impact assessment was the most appropriate and proportionate solution. In summary, they also broadly agreed that the option of doing nothing was not tenable and that wholesale end-to-end calls would be an excessive intervention and an inappropriate remedy because it would unbalance the competitive landscape, have a detrimental impact on network competition, discourage future investment and potentially retard competition in the calls market.

4.18 One respondent noted that it understood that under Option 3 Ofcom believed that DLE-interconnected CPSOs are likely to pass on the financial benefits to the wider CPSO community. This respondent noted that initial soundings it had made appeared to confirm that this would be the case. However, this company stated that Ofcom must be vigilant to ensure that BT's SMP in this area was not replaced by an oligopoly made up of DLE-interconnected CPSOs.

4.19 Telewest disagreed with Ofcom's identification of Option 3 as the solution to the local call disadvantage. Telewest stated that it believed such a remedy would be unduly discriminatory and legally challengeable.

Ofcom's view and final decision

4.20 Ofcom disagrees with Telewest's view that nothing should be done to resolve the local call disadvantage. Ofcom considers that doing nothing would probably result in several CPSOs exiting the market for local calls and therefore all calls, resulting in a reduction of competition in the calls markets across the UK. This competition would not be compensated for by the availability of cable.

4.21 Therefore, taking into account the predominantly positive responses Ofcom considers that BT should provide a local calls product that is available for DLE-interconnected CPSOs.

4.22 Ofcom acknowledges that only a small number of large CPSOs are likely to establish the connectivity required to carry local calls efficiently. However, the design of the local calls product must not such as to force smaller CPSOs to exit markets in which they ought to be able to compete (e.g. national calls)

4.23 With regards to the respondent's concern about an oligopoly of DLE-interconnected CPSOs, Ofcom can confirm that it will be closely monitoring this arrangement as it is implemented. Ofcom's initial view is that there will be sufficient DLE-interconnected CPSOs for the larger number of smaller CPSOs to exercise buyer power and ensure a competitive downstream market. If a competitive market did not emerge, then Ofcom may have to reconsider its decision. This could lead to the imposition of regulated wholesale end-to-end calls.

Proposals for implementation of CPS options

4.24 In paragraphs 5.2 to 5.8 of the June consultation, Ofcom proposed two additional CPS Subscriber Options in the Functional Specification – Option 4 (all calls except local calls) and Option 5 (local calls only, including the local call product). Ofcom asked the following questions:

Question 3: Do you agree with the permitted combinations of options in the draft direction? Should the combinations of CPS options that are permitted be constrained either because of practical or policy concerns ?

BT's view

4.25 In its response, BT stated that it supported Ofcom's goals but believed that the implementation could be simpler whilst achieving the same outcome. BT proposed offering different routing options to CPSOs within the current CPS "all calls" option. BT stated that these would allow for same-DLE and adjacent directly-connected DLE calls to be routed on BT's network for DLE-interconnected CPSOs and would allow smaller CPSOs to request that these calls be routed to a third-party CPSO with DLE interconnectivity.

Other communication providers' views

4.26 Gamma Telecom and Opal Telecom agreed with the two new CPS subscriber options proposed by Ofcom.

4.27 However, the majority of the other respondents disagreed with Ofcom's proposals for the two new CPS subscriber options. C&W, Caudwell Communications, Centrica Telecom, Energis, Kingston Communications and Thus all stated that they believed that the two new CPS subscriber options were overly complex, likely to be expensive to implement and not necessary to achieve the desired objective. These respondents stated that the local calls product could be implemented without changing the existing CPS subscriber options.

4.28 C&W stated that Ofcom should modify the terms of the existing CPS "all calls" subscriber option to that any DLE-interconnected operator would take the "all calls" option and be entitled to the local calls product for appropriate calls.

4.29 Caudwell, Centrica, Energis, Kingston and Thus recommended the same approach. In particular, Centrica, Kingston and Thus noted that introducing two new CPS subscriber options would require CPSOs to make substantial system changes to accommodate the new options. Centrica noted that Ofcom's proposals could also lead to consumer confusion.

4.30 Additionally, Energis asked why Ofcom was proposing to prevent subscribers from selecting Options 1, 2 and 5 (i.e. international calls, national calls and local calls, respectively). Energis argued that subscribers can do this by using the CPS override code 1280. Energis noted that there is little scope for price competition on NTS, PRS and calls to mobile. Therefore, Energis stated that each of the five CPS subscriber options should be available as a standalone choice.

4.31 C&W and Thus also stated that in order for the benefits to be made available to smaller CPSOs on a commercial basis Ofcom should ensure that transit arrangements could benefit from the local call product. Thus stated that it believes that the best way to create a sustainable and competitive market in local-tandem conveyance to assist smaller CPSOs would be via CPS third party transit. C&W stated that transit arrangements should be possible, with the transit operator gaining the benefit which could then be passed on commercially to the smaller CPSO.

4.32 Telewest stated that the constraint on CPS options should be that any option must be fair, equitable, non-discriminatory and cost-based.

Ofcom's view and final decision

4.33 Ofcom notes the views of BT, C&W, Caudwell, Centrica, Energis, Kingston and Thus that imposing two new CPS subscriber options would be overly complex, time consuming, expensive and potentially confusing to customers.

4.34 Ofcom considers that the proposals set out by these operators are reasonable, i.e. to modify the routing of the appropriate calls within the existing "all calls" CPS subscriber option. In Ofcom's view the suggested approach of modifying routing within the "all calls" option achieves the same objectives as Ofcom's initial proposal to have two new CPS subscriber options. Therefore, instead of having two additional options, CPSOs' traffic would be routed as appropriate according to one of two routing options for same-DLE/adjacent-DLE (SAD) calls within the existing "all calls" CPS subscriber option. These routing options within the "all calls" CPS subscriber option would be:

- routing of all calls (including SAD calls) as currently to the CPSO's network where there is no appropriate DLE-interconnection; and
- routing of SAD calls on BT's network (i.e. SAD call routing option) where there is appropriate DLE-interconnection.

4.35 Therefore, Ofcom will require the implementation of the SAD call routing option as a modification of the routing rules under the existing "all calls" CPS subscriber option.

4.36 Ofcom also considers that in order to ensure that the benefits can be passed on to smaller CPSOs via commercial agreements with larger DLE-interconnected CPSOs the SAD call routing option should be implemented in such a way as to allow third-party transit arrangements as suggested by C&W and Thus.

4.37 As the outcome of these changes will be identical as regards the overall policy objective, and also as regards the detailed routing of calls, Ofcom considers that this is a non-material change in what was consulted on.

4.38 Section 5 on implementation will discuss in more detail how these proposals will be implemented.

Proposals for modifying the CPS Functional Specification

4.39 In paragraphs 5.9 to 5.10 of the June consultation, Ofcom proposed changes to the CPS Functional Specification to allow for the establishment of a CPS Local Calls Option. Ofcom asked the following questions:

Question 4: Do you think that the proposed modifications to the CPS Functional Specification will allow for the establishment of a CPS Local Calls Option?

Question 5: Do you anticipate any unintended consequences as a result of the modifications to the CPS Functional Specification?

BT's view

4.40 In answer to question 4, BT noted that as set out in its response to Ofcom's question 3 it does not support the introduction of the two new CPS subscriber

options. However, BT supported the changes to the routing requirements and the associated changes to the CPS Functional Specification.

4.41 In answer to question 5, BT identified that there may be an impact on network rollout incentives due to the use of third-party CPSOs and BT's DLE closure plans. However, BT stated that it believes the proposals are appropriate and these outcomes are acceptable.

Other communication providers' views

4.42 Gamma Telecom, Opal Telecom and Your Communications agreed with the proposed modifications to the CPS Functional Specification.

4.43 Gamma Telecom did not believe there will be any undesirable unforeseen consequences.

4.44 Opal Telecom noted that the price of the interim adjustment should be set so as to remove any incentive on BT to delay. It also noted that it would expect a bulk transfer process to be made available to migrate to new routing facility.

4.45 Your Communications stated that Ofcom should take a view on whether BT should be able to resell local calls on a commercial basis in competition with DLE-interconnected CPSOs.

4.46 In response to question 4, C&W, Caudwell, Centrica, Energis, Kingston and Thus all noted that – as stated in their responses to question 3 – they did not believe that the two new CPS subscriber options are necessary. Therefore, these respondents stated that the CPS Functional Specification should be amended to implement their suggestions regarding the routing of calls within the CPS “all calls” option. C&W and Thus also stated that they believed that the CPS Functional Specification should allow transit offerings to benefit from the local calls product,

4.47 In response to question 4, Energis also stated that the direction should refer to the interim adjustment of BT's charges to CPSOs.

4.48 In response to question 5, Energis noted that there would be issues relating to customer sign-up, the use of multiple CPSOs by single SPs and that there should be a review of the modifications of the CPS Functional Specification after a time.

4.49 In response to question 5, Kingston also recommended a full review of the CPS Functional Specification following the development of the local calls product. Kingston also stated that further amendment of the CPS Functional Specification may be necessary to address interconnect billing.

4.50 In response to question 5, Thus stated that the associated costs on CPSOs of implementing the two additional CPS subscriber options may result in smaller CPSOs exiting the market and leading to increase market share for BT. Thus stated that Ofcom should avoid doing anything that would increase BT's market share.

4.51 In response to question 5, C&W stated that the benefits of the local calls product should only be available to CPSOs on those DLEs to which it is connected and that to prevent gaming a CPSO should only benefit if all its remaining calls are routed directly from that DLE. C&W also stated that the CPS Functional Specification should not limit competitive “all calls” transit products from being provided.

4.52 In response to question 5, Centrica noted that the proposals created a tension between the CPS Functional Specification and Schedule 143 to the BT Standard Interconnect Agreement (SIA). Therefore, Centrica noted that the SIA will need amending.

4.53 Telewest stated that it does not believe that the full range of value added services currently available via local call CPS will be replicated in the new wholesale product.

Ofcom's view and final decision

4.54 As noted above in paragraphs 4.33 to 4.38, in the light of responses to the consultation, Ofcom has revised its intention to require the implementation of two new CPS subscriber options. Therefore, the CPS Functional Specification will be amended to implement SAD call routing option. Section 5 of this document details how the CPS Functional Specification will be amended to achieve this.

4.55 Ofcom agrees with Opal that a bulk migration will be necessary for implementing the SAD call routing option to all relevant CPSOs.

4.56 Ofcom also agrees with C&W that the benefits of the SAD call routing option should only be available to CPSOs on those DLEs to which it is connected and that a CPSO should only benefit if all its remaining calls are routed directly from that DLE.

4.57 Ofcom notes Centrica's observation of a tension between the description of CPS call routing in Schedule 143 to the BT SIA and the SAD call routing option. Ofcom considers that the relevant sections of the SIA will need to be amended to rectify this.

Defining DLE-interconnection

4.58 In paragraphs 5.12 to 5.13 of the June consultation, Ofcom proposed that the definition of DLE-interconnection should include CPSOs using their own fibre, leasing someone else's fibre and/or leasing the underlying 2Mbit/s interconnection circuit from BT. Ofcom asked the following questions:

Question 6: Do you agree with Ofcom's definition of DLE-interconnection? If not, how would you define DLE-interconnection?

BT's view

4.59 BT agreed with Ofcom's definitions of DLE-interconnection. BT also noted that physical network connectivity is essential to send messages regarding network investment to the market.

Other communication providers' views

4.60 C&W, Caudwell, Centrica, Energis, Gamma Telecom, Opal Telecom, Thus and Your Communications agreed with the three models of DLE-interconnection described by Ofcom.

4.61 Whilst supporting Ofcom's definition of DLE-interconnection, C&W stated that Ofcom should clarify whether in building interconnection (IBI) circuits would be included within the definition of DLE-interconnection.

4.62 Energis stated that CPSOs should be able to use existing infrastructure which might have initially been intended for the conveyance of other traffic. Energis suggested that Ofcom could use the definitions set out in Schedule 01 and 130 of the SIA.

4.63 Thus agreed that it would be unnecessary and undesirable for all CPSOs to interconnect at the DLE. Thus also stated that the use of third-party transit should be permitted. It stated that it has already received expressions of interest in the third-party transit service from a number of smaller CPSOs.

4.64 Your Communications noted that there might be other interconnection models that should fall within the scope and that Ofcom should not preclude these models.

4.65 Telewest stated that Ofcom's definition of DLE-interconnection is unduly narrow and inconsistent with the principle of reciprocity. Telewest stated that Ofcom's definition would effectively mandate reciprocal treatment of operators at the DLE level.

Ofcom's view and final decision

4.66 Ofcom considers that the examples of DLE-interconnection proposed in the June consultation are appropriate and that the SAD call routing option should be developed on this basis. For clarity and in response to C&W's query, Ofcom considers that IBIs would fall within the scope of the examples of DLE-interconnection contained in the June consultation.

4.67 Ofcom notes that the definition in the SIA is for interconnection links not for interconnection itself. In any event, Ofcom considers that the broader legal definition of interconnection contained in section 151(2) of the Communications Act 2004 (the "Act") would be more appropriate, i.e. "the linking (whether directly or indirectly by physical or logical means, or by a combination of physical or logical means) of one public electronic communications network to another for the purpose of enabling the persons using one of them to be able – (a) to communicate with users of the other one; or (b) to make use of services provided by means of the other one (whether by the provider of that network or by another person)".

Proposals regarding indirect access (IA)

4.68 In paragraphs 5.14 to 5.18 of the June consultation, Ofcom discussed whether indirect access (IA) should be included in the scope of a local calls product. Ofcom asked the following questions:

Question 7: Do you consider that IA should be included in the scope of the CPS Local Calls Option? Would an effective migration process from IA to CPS be an acceptable alternative?

BT's view

4.69 In its response, BT stated that IA is not CPS and therefore cannot be dealt with through changes to CPS functional specification. BT stated that it did not believe that IA requires an equivalent local calls product. Furthermore, BT stated that it did not see how such a product could be implemented sensibly, given the means by which IA operators undertake call by call customer validation.

4.70 BT also stated that it was unaware of specific barriers to migration of customers from IA to CPS. BT stated that it remained deeply concerned at the extent to which customers are forcibly migrated from one retail service provider (frequently BT) to a CPSO's service provider without the customer's permission. BT stated that it regarded this as slamming.

Other communication providers' views

4.71 The responses from other communications providers were divided on the issue of whether the local calls product should include IA or whether an efficient migration process would be an acceptable alternative.

4.72 Energis stated that IA should not be included in the CPS local calls option. It stated that there were different markets for the two products. Energis also stated that it was difficult to see how a cost-effective solution could be developed for IA. Energis also did not see a need for a migration process, as it stated that CPSOs have had since December 2000 to migrate customers.

4.73 Caudwell stated that it was indifferent to the inclusion of IA in the local calls product. It stated that it would be necessary to fully understand the cost implications and suggested that a feasibility study would be helpful in reaching a decision.

4.74 In their responses C&W, Centrica, Gamma Telecom, Kingston, Opal, Thus and Your Communications all argued for IA to be included in the scope of the local calls product and/or for their to be an effective migration process.

4.75 C&W stated that it was absolutely vital that the local calls product was available for all forms of indirect voice. It noted that migration was difficult because it required individual customer action and involved significant transaction costs. C&W stated that the interim adjustment should be available for IA until such a time as a fit for purpose migration process had been developed, implemented and had been used by IA providers.

4.76 Centrica stated that it firmly believed that IA must be considered. Centrica stated that it had a significant customer based of fixed line customers that preferred to use IA rather the CPS. It noted that its IA customer based was primarily the result of interim-CPS and the delay in the implementation of full CPS. Centrica stated that if there was no local call product for IA then BT should be made to rebate IA operators. Centrica acknowledged that this adjustment should not be indefinite. It suggested that it should last for two years plus a lump sum compensation in third year.

4.77 Gamma Telecom stated that it was important that IA was included in the scope of the local calls product, but that it would not want to see complexities related to IA delaying the product for CPS.

4.78 Kingston stated that there were technical issues that would effectively preclude the inclusion of IA in a local calls product, in particular validation of calls and related fraud. However, Kingston noted that if IA was totally excluded it could foreclose the market for IA local calls. Kingston stated that effective migration would be an answer where IA is used analogously to CPS, but noted that this is not true in all cases. Kingston suggested that an effective migration process should be established and that reduced rates (like the interim adjustment) should be put in place for IA local calls.

4.79 Opal Telecom stated that IA should be included in the scope. It noted that the majority of IA customers had already been migrated, but that IA continued to be used for number of services, such as Least Cost Routing (LCR). Opal proposed that the interim adjustment should also apply to IA local calls.

4.80 Thus stated that inclusion of IA in the local calls product is a vital product requirement. It stated that if it were not included IA will cease to be an effective method of competing against BT in the local calls market, and therefore in the market for all calls. Thus stated that it believed there were possible solutions to resolve the technical issues. It also stated that if there was no agreement it believed that IA minutes should be included in the interim adjustment. And if no permanent solution is developed IA minutes should be eligible for an ongoing adjustment. Thus stated that free-cost migration would be a poor substitute for either a full local calls product for IA or a permanent price adjustment.

4.81 Your Communications strongly supported the inclusion of IA in the scope of the local calls product. It expressed concerns with migration as a substitute, stating that it would take a long time to develop and would present an additional hurdle. Your Communications also noted that the local calls product must cover ported numbers.

Ofcom's view and final decision

4.82 Ofcom considers that in certain, but not all, cases IA is functionally equivalent to CPS. That is, where IA is being used to route all calls made by an end-user, e.g. by using an auto-dialler, then IA is functionally equivalent to CPS. However, if IA is being used to select a different network on a call-by-call basis it is not equivalent to CPS. It is also worth noting that in this instance these would usually be higher value calls, e.g. international calls.

4.83 Having considered the responses to the June consultation, Ofcom considers that the technical and operational complexities related to the development of an equivalent SAD call routing option for IA represent significant barriers to the timely delivery of such functionality.

4.84 Ofcom believes that there should be few barriers to the migration of all calls IA customers to CPS. It would be important to ensure that only end-users using IA for all calls were migrated, and Ofcom believes that an opt-out migration process is sufficient to ensure this. Ofcom would expect CPSOs to take reasonable precautions to ensure that end-users are not transferred inappropriately. Ofcom does not consider that there is any incentive to CPSOs to "slam" partial IA customers as this would most likely cause customer dissatisfaction and resultant churn.

4.85 Ofcom considers that in order to maximise the benefit of the SAD call routing option to them, CPSOs should consider migrating these customers to CPS.

4.86 Ofcom does not currently consider that there is an overwhelming case for either an IA SAD call routing option or an interim adjustment for IA local calls:

- the migration process described above should address the local call disadvantage for those IA calls currently being provided as part of an all-calls IA service;
- there is not currently a significant local-calls-only market for IA providers, and so it would be disproportionate to require BT to make available an IA SAD call routing option for this market; and

- Ofcom notes Centrica's statement that some end-users prefer to use IA to CPS, but would wish to explore the reasons for this further. There may be a simpler remedy to this problem than requiring BT to make available an IA SAD call routing option.

Product development proposals and timescales

4.87 In paragraphs 5.19 to 5.20 of the June consultation, Ofcom proposed the local calls product should be implemented by the end of 2004 and that CPSOs should be closely involved in the product development, possibly through existing industry groups. Ofcom asked the following questions:

Question 8: Do you agree with the product development proposals and timescales?

BT's view

4.88 BT agreed with Ofcom's proposals to use the existing CPS forum and groups and committed to working with CPSOs to deliver the local calls product.

4.89 BT stated that at the time of its response it had no clear view on development timetables, but was bearing Ofcom and CPSO's intentions in mind. BT also noted that the interim charging adjustment will provide BT with a strong incentive to develop the final product.

Other communication providers' views

4.90 C&W, Centrica, Gamma Telecom, Opal Telecom, Thus and Your Communications agreed with Ofcom's product development proposals and timescales. Centrica also noted that it was vital that BT Wholesale worked with CPSOs on the development of the local calls product. Thus also noted that there was likely to be a considerable cost to CPSOs in implementing the proposals and urged Ofcom to take an active role in the discussions. Your Communications also stated that it would like reassurance and clarity about how the development of the local calls product would impact other CPS and WLR development work.

4.91 Caudwell stated that it was too early to assess the feasibility of Ofcom's proposed timescales. Caudwell welcomed the incentive provided by the interim adjustment but noted that it did not want to see other CPS developments to be delayed.

4.92 Energis stated that it thought that the launch date of end-2004 seemed rather challenging. It noted that it looked forward to BT Wholesale's timetable for development.

4.93 Kingston stated that it intends to make resource available to this work to be involved in whatever capacity is required. It also stated that it believed that the majority of the development can be replicated from existing products, thus minimising costs and timescales.

Ofcom's view and final decision

4.94 Ofcom considers that the product development of the SAD call routing option should be overseen by Ofcom with advice from the Service Providers' Forum (SPF), which includes BT Wholesale, BT Retail, CPSOs and service providers. Following

discussions in the SPF, Ofcom has decided that a new working group should be established to oversee the development of the SAD call routing option. This group should include Ofcom, BT, CPSOs (both large DLE-interconnected CPSOs and smaller CPSOs) and service providers. This group will report each month to the SPF.

4.95 Ofcom will monitor BT's progress and will be requiring BT to provide detailed development plans and timescales for agreement and monitoring.

Proposals for the ongoing price of the local calls product

4.96 In paragraph 5.21 of the June consultation, Ofcom proposed the ongoing cost of the local calls product should be charged to CPSOs on the same basis as BT Retail. Ofcom asked the following questions:

Question 9: Do you agree with Ofcom's proposals for the ongoing price of the CPS Local Calls Option?

BT's view

4.97 BT concurred with the Ofcom's proposed approach to charging. It stated that it would use off-the-shelf NCC charging components to construct the conveyance charges. It noted that the final pricing of the product will only be available when the final statements on PPP and the CPS local calls product are published.

4.98 BT also noted that it was assessing whether significant additional operating costs will be associated with the local calls product.

Other communication providers' views

4.99 In their responses, Caudwell, Centrica, Gamma Telecom, Kingston, Opal Telecom, Thus and Your Communications agreed with Ofcom's proposals for the ongoing price of the local calls product. Opal stated that it would not welcome further CPS or IA set-up costs or other administration charges or transfer charged for migration.

4.100 Energis noted that local-to-local conveyance (LLC) is not formally defined in BT's regulatory accounts. Energis asked whether Ofcom was proposing that BT calculate a figure for LLC prior to the launch of the new service and whether this would be audited.

Ofcom's view and final decision

4.101 Taking into account the responses, Ofcom considers that DLE-interconnected CPSOs that take up the SAD call routing option should be charged on the same basis as BT Retail. That is, the CPSO should be charged:

- for same-DLE calls for LECO and the LECT stick; and
- for adjacent directly-connected DLE calls for LECO, LLC stick and LECT.

4.102 Ofcom considers that BT will have to formally define LLC and to include it in its regulatory accounts.

4.103 Ofcom also considers that the systems should be implemented in such a manner as to minimise any additional operating costs. Ofcom does not consider that

CPSOs should be subject to such operating costs that would negate or partially negate the resolution of the local call disadvantage. Similarly, Ofcom expects BT to cover any additional costs associated with administering the interim adjustment.

4.104 Section 5 of this document provides the detail of how the charge for the new routing option will be calculated.

Scope and calculation of the interim adjustment

4.105 In paragraphs 5.21 to 5.25 of the June consultation, Ofcom proposed that the interim adjustment to be paid by BT to DLE-interconnected CPSOs (between 1 July and the launch of the local calls product) should compensate for the tromboning effect as if the new local calls product was in place. Ofcom asked the following questions:

Question 10: Do you agree with Ofcom's view on the scope and calculation of the interim adjustment?

BT's view

4.106 BT agreed with the scope and the calculation methodology for the interim adjustment. It noted that it intends to use real-time NCC charging components used in other conveyance charges to calculate the adjustment.

Other communication providers' views

4.107 C&W, Caudwell, Centrica, Energis, Gamma Telecom, Kingston, Opal Telecom, Thus and Your Communications all agreed with Ofcom's proposals for calculating the interim adjustment.

4.108 Caudwell stated that it was concerned that the interim adjustment was not included in the draft direction, but added that it was given some comfort by BT's public statements.

4.109 Centrica noted that using BT's costs was likely to reduce the level of the advantage to be adjusted, as CPSOs' additional conveyance costs were not likely to be as efficient as BT's. Centrica urged Ofcom to carry out further modelling using CPSOs' costs.

4.110 Energis stated that it would only support the use of offline rating of actual CDRs and that it did not agree with the use of statistical methods for this purpose. Gamma Telecom stated that it had concerns with statistical methods being used.

4.111 Opal noted that the adjustment will not compensate for lost business in the wholesale local calls market.

4.112 Thus stated that Ofcom must focus on the relevant cost savings brought about by this proposals, i.e. those which result in lower monthly conveyance charges from BT for routing this traffic type. It noted that in reality many of the own-network savings identified will never be realised as the infrastructure cost savings relate to sunk capex which can't be varied in the short term.

Ofcom's view and final decision

4.113 Taking into account the responses received to the June consultation, Ofcom considers that the interim adjustment should address the total local call disadvantage and not just that part of the disadvantage that relate to outpayments to BT.

4.114 Ofcom considers that the most practicable solution to compensate CPSOs for the costs of conveyance on their own networks is to use BT's conveyance costs as a proxy for a reasonably efficient operator. Ofcom considers that attempting to calculate the individual network costs of each CPSO would be complex, open to disagreement and could delay the implementation of the interim adjustment and potentially even the final solution. Even if such a calculation was practical, it would not be appropriate, since Ofcom does not consider that the interim adjustment is intended to compensate for CPSOs' lack of economies of scale and reach.

4.115 BT has committed to using offline rating of CDRs to calculate the interim adjustment, rather than statistical methods. Ofcom welcomes this as being the most transparent and accurate approach.

4.116 Section 5 of this document provides the detail of how the interim adjustment will be calculated and implemented.

4.117 Ofcom also notes that – given the public commitments given by BT regarding the interim adjustment – it is not necessary to include the interim adjustment in the direction.

Proposals for cost recovery

4.118 In paragraphs 5.26 to 5.27 of the June consultation, Ofcom proposed that the established cost recovery principles for CPS be used for costs associated with the local calls product. Ofcom asked the following questions:

Question 11: Do you agree with Ofcom's proposals for cost recovery for the CPS Local Calls Option?

BT's view

4.119 BT concurred with Ofcom's proposed use of the CPS cost recovery principles and the use of the CPS Levy to recover these costs.

Other communication providers' views

4.120 The responses from other communications providers were generally supportive of Ofcom's proposals for cost recovery.

4.121 In its response, C&W supported proposals for cost recovery. However, it stated that it did not consider that the costs should be loaded on CPS and IA operators, because the local calls product was addressing some of the inherent legacy problems of lack of equivalence in the provision of monopoly wholesale products by BT. Therefore, C&W stated that the cost should be shared across all operators including BT Retail.

4.122 Caudwell questioned whether, in order to recover the additional costs, the surcharge would increase or whether the application of the surcharge would continue for longer. It also noted that full visibility of the costs was important.

4.123 Energis stated that in principle Ofcom's proposals seemed reasonable. It argued that the local call product should have been available in December 2000 and, therefore, CPSOs will have to pay twice: once for the delay and again because of the local call disadvantage. Therefore, Energis proposed that BT alone bear the cost of development.

4.124 Whilst agreeing with Ofcom's proposals, Kingston stated that it was concerned that BT would want to charge for the implementation of the new routing plans required to implement the two new CPS subscriber options. It believed that the costs involved in this would be prohibitive. However, if the two new CPS subscriber options was the most practicable way of delivering the local calls product, Energis suggested that the costs should be attributable to system set-up costs and recovered by the ppm surcharge.

4.125 Opal stated that the vast majority and possibly all of the costs should be treated as system set-up costs.

4.126 Whilst noting that it disagreed with the proposals for two new CPS subscriber options, Thus urged that the costs of the development of the local calls product are attributable to the system set-up costs and recovered via the ppm surcharge.

4.127 Your Communications stated that they did not disagree with the proposals for cost recovery but were concerned about them setting a possible precedent for future work. It also stated that Ofcom should consider requiring BT to bear a higher proportion of the cost on the basis that BT has benefited from the local call disadvantage.

Ofcom's view and final decision

4.128 Ofcom considers that the costs of the development of the SAD call routing option are system set-up costs. Therefore, Ofcom considers that the appropriate solution is to use the CPS levy to recover these costs. That is, these new system set-up costs should be recovered in the same way as earlier set-up costs. Ofcom notes that the levy is recovered across all calls which originate on BT's network and which are eligible for CPS. Therefore, BT Retail bears the largest proportion of the costs.

Other issues regarding DLE-interconnection

4.129 In paragraphs 5.28 to 5.20 of the June consultation, Ofcom identified four issues that could potentially create a barrier to CPSOs interconnecting at the DLE, i.e. STP signalling, availability of overflow on DLE routes, planning rules for DLE routes and ACO forecasting. Ofcom asked the following questions:

Question 12: Are there any other issues relating to the practicalities of DLE-interconnection that Ofcom has not identified?

BT's view

4.130 BT stated that it did not believe that there is tangible evidence that DLE interconnection presents an impossible hurdle to CPSOs. BT stated that it remained open to reviewing processes that prove to be unnecessarily restrictive for CPSOs.

Other communication providers' views

4.131 C&W raised some detailed issues regarding ported numbers. This issues is discussed in more detail in section 5 of this document.

4.132 C&W also stated that there were a number of issues that would need to be addressed to ensure that the local calls product was effective. These included:

- publication by BT of a clear list of adjacent directly-connected DLEs;
- a clear understanding of the network changes that will be made by BT;
- the reconciliation of bills for the local calls product;
- ensuring no new charges are introduced for this service and that process for interfaces are as simple as possible;
- the implementation of effective fault reporting;
- inclusion of the local calls product in BT's regulatory accounts; and
- the DLE interconnection issues raised by Ofcom.

4.133 Caudwell and Centrica both stated in their response that they had identified no problems or issues at this time.

4.134 Energis stated that it trusted that BT will not be permitted to seek additional data-build charges from DLE-interconnected operators. Energis also asked what would occur when operators host another CPSO's operator code.

4.135 Gamma Telecom noted that there were practical provisioning issues with STP that was causing it problems. Additionally, Gamma Telecom stated that BT currently does not provide overflow on congestion or route failure for CPS and IA. It also stated that it had concerns regarding the timely delivery of CDRs.

4.136 Kingston stated that it was concerned about the possibility of implementing large scale investment in additional local processor interconnect to optimise savings while BT are escalating their local exchange rationalisation project.

4.137 Kingston also noted that in implementing Option 3 Ofcom should consider:

- 21st century network issues;
- the lack of visibility of call data records and the validation of these;
- the identification of directly connected DLEs;
- that overflow traffic should be routed via interconnects at a DMSU that the DLE is parented at; and
- STP signalling issues.

4.138 Opal stated that it saw no practical issues that could not be easily resolved if BT has sufficient incentive.

4.139 Thus stated that it would require information from BT detailing inter-DLE connectivity and that it was unclear how BT's 21st Century network programme would impact on the proposals.

4.140 Your Communications stated that it transparency of DLE information, i.e. adjacent directly connected DLEs, was essential.

Ofcom's view and final decision

4.141 Ofcom hopes to see resolution of the STP issue through commercial negotiation between BT and the relevant operators. Ofcom understands that these negotiations are currently underway. Ofcom also hopes that the other issues, such as DLE overflow and provisioning/forecast timescales, can be dealt with either in bilateral negotiation, or in the relevant industry working group.

4.142 With regards to BT's planned 21st Century network and DLE closure programmes, Ofcom acknowledges that these create uncertainty in relation to the long term development of CPS. This and a number of related issues are being considered within the context of Ofcom's Access and Interconnection policy project, and also within the context of the Strategic Review of Telecommunications. However, the local call disadvantage is a short-term issue that urgently requires resolution, and the existence of uncertainty as to longer-term developments should not prevent Ofcom from doing so.

4.143 Ofcom also agrees that NIPP will require updating to provide details on DLE connectivity. This is required not just to allow CPSOs' to validate the final routing solution but also to allow them to validate the interim adjustment.

4.144 Ofcom recognises the issues regarding billing and fraud detection, but considers that these detailed implementation issues should be overseen by the SPF implementation working group.

4.145 These issues are discussed further in the "Detailed implementation issues" sub-section in section 5.

Obligation to inform the Commission, other National Regulatory Authorities and the Secretary of State

4.146 Pursuant to section 50 of the Act, Ofcom sent the notification of 4 June 2004 specifying the proposed condition and modification to the European Commission, other NRAs and the Secretary of State.

4.147 Ofcom received a response to the June consultation from the European Commission stating that it had no comments on Ofcom's proposals. Ofcom received no responses from other NRAs or the Secretary of State.

Section 5

Ofcom's final decision

5.1 This section sets out Ofcom's final decisions on the high-level principles for the CPS local calls product.

Description of the same-DLE/adjacent-DLE routing option

5.2 Ofcom considers that BT should offer two network routing options to CPSOs within the "all calls" CPS subscriber option, rather than the current single routing option. The two routing options should be:

- the current routing arrangement, i.e. all CPS traffic handed over to the CPSO at the point of connection; and
- a new routing option that routes a subset of calls end-to-end on BT's network and continues to route all other calls according to the CPSO's routing plan. The subset of calls to be routed end-to-end on BT's network are those that are originated and terminated on the same DLE or originated on one DLE and terminated on an adjacent directly-connected DLE. These will henceforth be referred to as SAD (Same/Adjacent-DLE) calls.

5.3 A CPSO will be able to buy call origination in relation to these SAD calls, but instead of the calls being conveyed via the CPSO's network, BT will terminate the call, and charge the CPSO for a service bundle comprising local exchange call origination and local exchange call termination. That is, BT will make available to CPSOs on a non-discriminatory basis (as it would be subject to BT's SMP Condition AA2 in particular) the same 'stick' services available to BT Retail.

5.4 The new SAD call routing option must be available for selection by CPSOs on a DLE by DLE basis where:

- the CPSO is interconnected at the DLE; and
- the interconnection to the DLE is configured to carry CPS traffic and substantially the remainder of their CPS traffic is handed over at the DLE.

5.5 The new SAD call routing option should not be available to CPSOs on DLEs to which they are not interconnected. Calls originating on these DLEs will continue to be routed to the agreed point of connection as at present.

5.6 Calls which would be routed by BT via its tandem exchanges are unaffected by this change. This is because CPSOs can route these calls as efficiently as BT, by interconnecting with BT's DLEs, and substituting their own conveyance and switching for BT's local-tandem conveyance service.

5.7 It is necessary to consider what definition of interconnection should be used to determine whether CPSOs are eligible for the new SAD routing option. Ofcom considers that the legal definition of interconnection contained in section 151(2) of the Communications Act 2004 (the "Act") is appropriate in this circumstance, i.e. "the linking (whether directly or indirectly by physical or logical means, or by a combination of physical or logical means) of one public electronic communications network to another for the purpose of enabling the persons using one of them to be

able – (a) to communicate with users of the other one; or (b) to make use of services provided by means of the other one (whether by the provider of that network or by another person)”. In Ofcom’s view examples of this include a CPSO connecting to a DLE by:

- using their own fibre, i.e. In-Span Interconnect (ISI);
- leasing someone else's fibre, i.e. third-party ISI; and/or
- leasing the underlying 2Mbit/s interconnection circuit from BT, i.e. a Customer Sited Interconnect (CSI), Interconnection Extension Circuit (IEC), an Intra Building Circuit (IBC) and In Building Interconnection circuit (IBI).

Transit arrangements

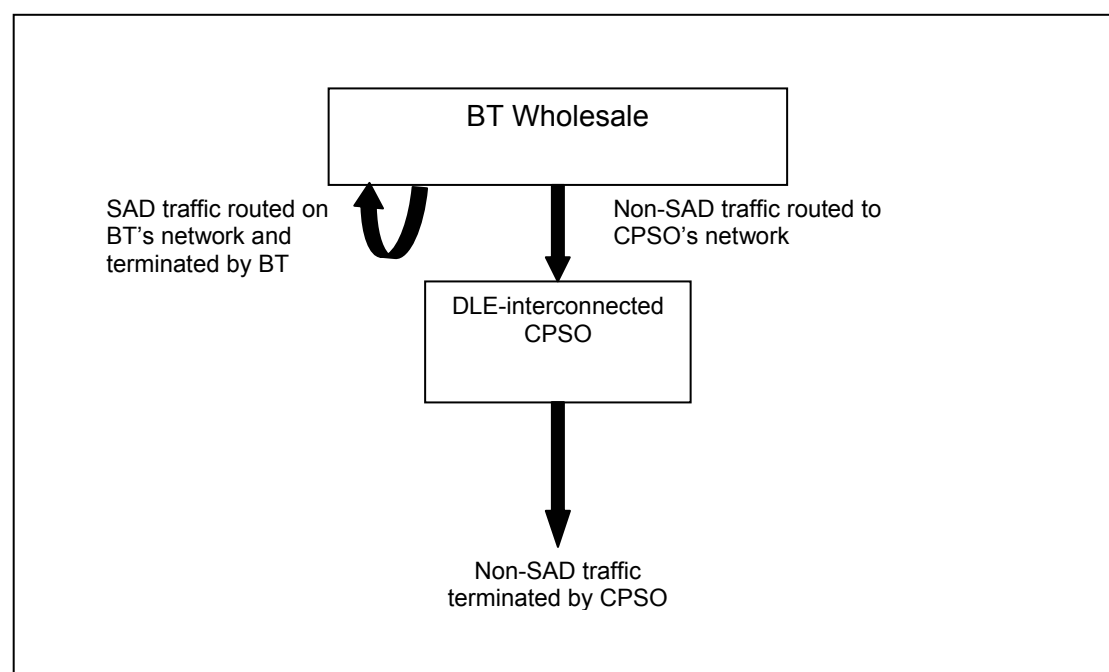
5.8 By implementing the two new routing options under the “all calls” CPS Subscriber Option, Ofcom acknowledges that the value chain described in the June consultation and illustrated by Figure 3 in this document will not be workable. That is, as there will only be one relevant CPS Subscriber Option – rather than two new options – it will not be possible for smaller CPSOs to purchase all calls except local calls from BT and purchase local calls only on a commercial basis from a larger CPSO.

5.9 Ofcom’s policy objective is to address the local call disadvantage for those CPSOs that have invested in network infrastructure and to allow the benefits to be passed to smaller CPSOs without DLE-interconnection on a competitive and commercial basis.

5.10 CPSOs who have invested in network infrastructure by building out to BT’s DLEs may choose to negotiate on a commercial basis with those CPSOs that have not. In other words they may choose to offer an SAD “transit” product to those CPSOs with less infrastructure.

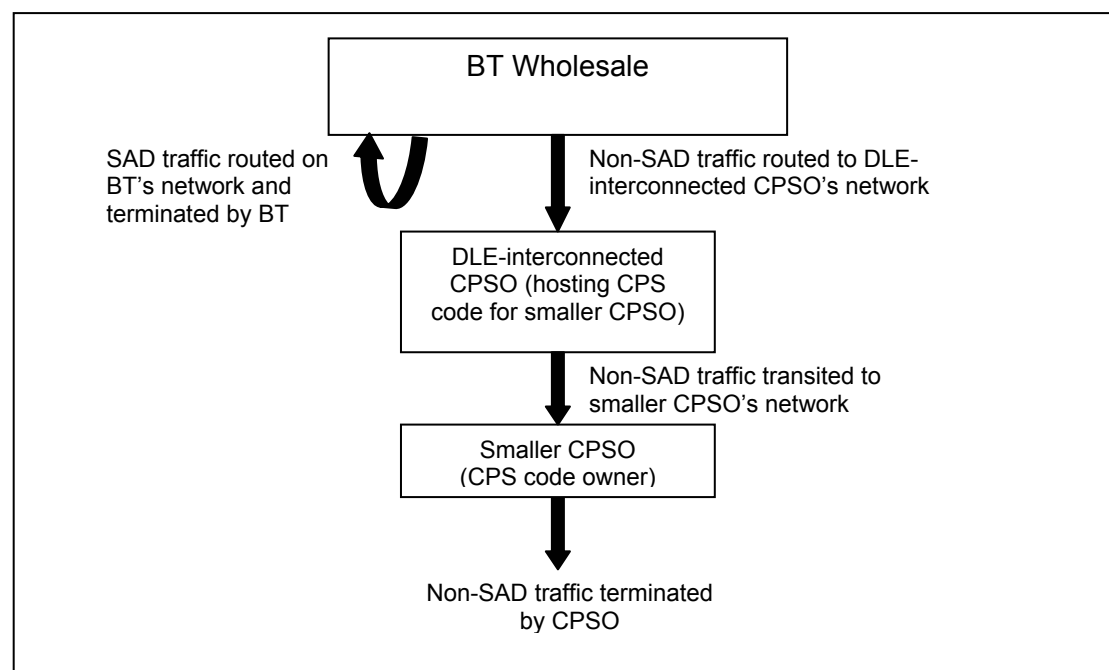
5.11 Ofcom considers that there are a number of possible transit arrangements that could be commercially agreed between DLE-interconnected and smaller CPSOs. The three diagrams below illustrate different models of the value chain. Figure 4 shows the simplest relationship between a DLE-interconnected CPSO and BT Wholesale. Figures 5 and 6 illustrate two potential models for transit arrangements. However, Ofcom does not propose to disallow other conceivable transit products that may develop over time as the result of commercial negotiations.

Figure 4 – Relationship of BT and DLE-interconnected CPSO



5.12 This example shows the simplest scenario. That is, where the DLE-interconnected CPSO is providing service directly to an end-user without any other resellers or smaller CPSO in the value chain.

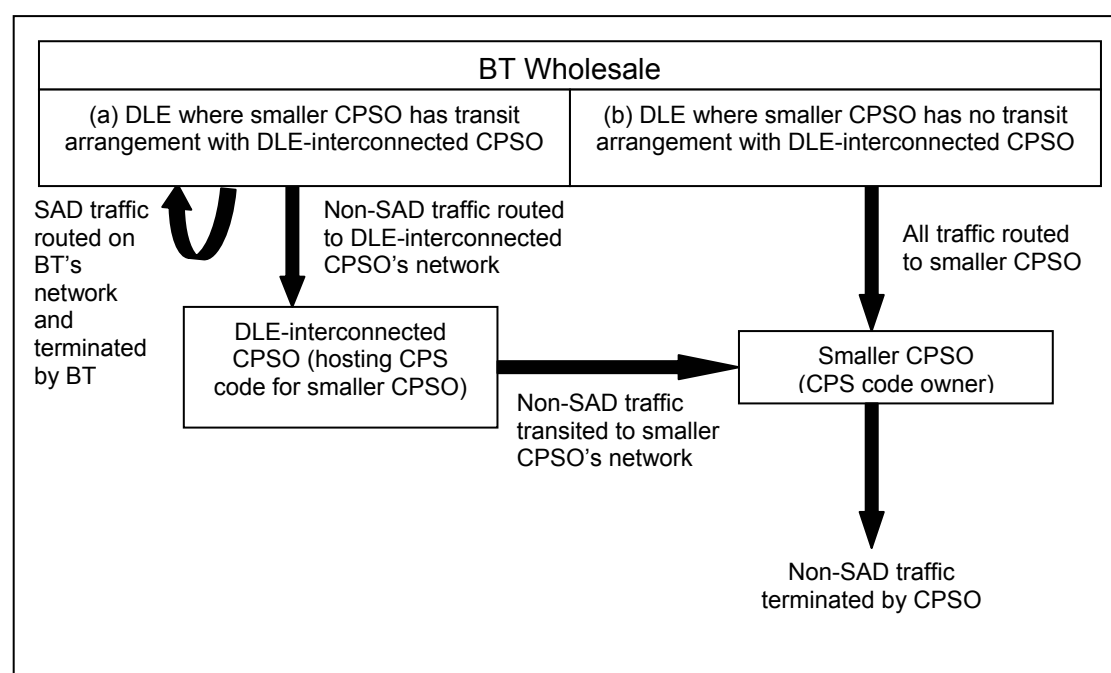
Figure 5 – An example of a transit arrangement (1)



5.13 In this model, BT Wholesale bills the DLE-interconnected CPSO for originating the non-SAD traffic and for delivering the SAD traffic on BT's own network. The DLE-interconnected CPSO then bills the smaller CPSO on a commercial basis for (i) the SAD traffic and (ii) transiting the non-SAD traffic from the DLE to the smaller CPSO's network. However, the smaller CPSO has access to the CPS Gateway for customer

handling, etc and will be billed directly by BT for CPS transactions such as setting up a customer, etc.

Figure 6 – An example of a transit arrangement (2)



5.14 In this model, where the traffic is originated on a DLE where the smaller CPSO has a transit arrangement with a DLE-interconnected CPSO (i.e. circumstance (a) in the diagram), BT Wholesale bills the DLE-interconnected CPSO for delivering the SAD traffic on BT's own network and the smaller CPSO for originating the non-SAD traffic. The DLE-interconnected CPSO then bills the smaller CPSO on a commercial basis for the SAD traffic.

5.15 Where the traffic is originated on a DLE where the smaller CPSO does not have a transit arrangement with a DLE-interconnected CPSO (i.e. circumstance (b) in the diagram), BT Wholesale bills the smaller CPSO for originating all traffic.

5.16 In both cases, the smaller CPSO has access to the CPS Gateway for customer handling, etc and will be billed directly by BT for CPS transactions such as setting up a customer, etc.

Summary of transit arrangements

5.17 As stated above, Ofcom considers that the use of transit arrangements between DLE-interconnected and smaller CPSOs is likely to enable the benefits of the SAD call routing option to be passed on throughout the value chain. Such arrangements should allow smaller CPSOs to make efficient use of their existing networks and benefit indirectly from the SAD call routing option on a commercial basis without the necessity of building their networks out to all of BT's DLEs.

5.18 Ofcom considers that there are a number of potential transit models and has set out the two models shown in figures 5 and 6 for illustrative purposes. Ofcom is neither prescribing nor proscribing individual transit models.

Amendment of the CPS Functional Specification

5.19 The CPS condition (AA8) requires CPS to be provided at the request of any customer and that relevant wholesale interconnection facilities are provided to CPSOs on reasonable terms and in accordance with the CPS Functional Specification. The CPS Functional Specification establishes certain technical and other principles in order to enable the efficient implementation of CPS.

5.20 The Director made a direction setting out the CPS Functional Specification on 28 November 2003 as part of the Review of the fixed narrowband wholesale exchange line, call origination, conveyance and transit markets. This CPS Functional Specification of 28 November 2003 applies to both BT and Kingston Communications.

5.21 The introduction of a SAD call routing option requires modifications to the CPS Functional Specification for BT. Therefore, Ofcom consulted on a draft direction to modify the CPS Functional Specification for BT as described below. It should be noted that, for the reasons given at paragraph 4.44 of the June consultation, the CPS Functional Specification of 28 November 2003 will continue to apply to Kingston Communications. The modified CPS Functional Specification described below will apply solely to BT.

Call routing

5.22 Paragraphs 17-20 of the CPS Functional Specification describe the routing of calls by CPS. Currently the CPS Functional Specification states:

17. Where a Subscriber has elected to have calls routed by Carrier Pre-selection the following shall apply:

- (i) calls to numbering ranges subject to Carrier Pre-selection shall be routed according to the Subscriber's selected CPS Provider to an agreed Point of Connection; and*
- (ii) calls to numbering ranges excluded from the particular Subscriber option(s) selected shall not be affected.*

18. Where a call is routed by Carrier Pre-selection, the Dominant Provider shall prefix the Subscriber's dialled digits with the CPS Code before passing the call across the Point of Connection. The CPS Code ensures routing through the Dominant Provider's Public Telephone Network to the Point of Connection.

19. Where a pre-selected call is dialled using the local dialling format, the Dominant Provider must insert the leading zero and area code between the CPS Code and the dialled Telephone number.

5.23 Ofcom considers that, in order to allow for the two routing options under the "all calls" CPS Subscriber and to allow for transit arrangements to be made between CPSOs, it will make the following changes to the CPS Functional Specification:

- amend the definition of CPS Provider in paragraph 8 so that it reads: "A Pre-selected Provider that has established Points of Connection with the Dominant Provider, either directly or via a Transit Provider, and has been allocated a CPS Code by Ofcom";

- add the following definition for “Transit Provider” in paragraph 8: “A transit provider is a Communications Provider, which for clarification is not the Dominant Provider, which directly connects the Dominant Provider’s network to the network of a CPS Provider for the purposes of the conveyance of CPS calls”; and
- add the following text at the end of paragraph 17: “except where the CPS Provider selects that those calls that originate on any of the Dominant Provider’s DLEs and terminate on the same DLE or on an adjacent directly-connected DLE shall be routed end-to-end over the Dominant Provider’s network. This routing option is only available for selection by the CPS Provider at those originated DLEs of the Dominant Provider where the CPS Provider is interconnected and where substantially all of their remaining CPS calls are handed over at the DLE.”

The interim adjustment and ongoing cost

Ongoing price of the product

5.24 On the basis of BT’s cost orientation and no undue discrimination obligations in the call origination market, Ofcom considers that DLE-interconnected CPSOs that take up the SAD call routing option must be charged on the same basis as BT Retail. That is, the CPSO will be charged:

- for same-DLE calls for LECO and the LECT stick; and
- for adjacent-DLE calls for LECO, LLC Stick and LECT.

5.25 On the basis of the figures provided by BT in its response, Ofcom has calculated these charges as:

- for same-DLE calls, the charge will be 0.3019 pence per minute (ppm) (where the CPSO is purchasing call origination with operator assistance) and 0.2919 ppm (where the CPSO is purchasing call origination without operator assistance); and
- for adjacent directly-connected calls, the charge will be 0.3974 ppm (where the CPSO is purchasing call origination with operator assistance) and 0.3874 ppm (where the CPSO is purchasing call origination without operator assistance).

5.26 It should be noted that these charges exclude PPP (which is the subject of a separate consultation and final statement). However, Ofcom notes that the CPSO will only be charged PPP once for these calls. Additionally, Ofcom notes that these calculations are based on BT’s latest figures for the 24-hour average cost; in reality, these charges will be calculated in line with the time of day gradient.

5.27 In order to provide transparency and validation of the adjacent directly-connected DLE price, Ofcom considers that BT will have to define LLC and the LLC stick and to include these in its regulatory financial statements.

Interim adjustment of CPSO costs

5.28 As noted in the June consultation, BT announced that until the final solution was launched interim arrangements would be put in place from 1 July 2004. These interim arrangements will adjust the amount that DLE-interconnected CPSOs are charged to

compensate for the tromboning effect as if the new SAD call routing option was in place.

5.29 Ofcom considers that this adjustment should address the total local call disadvantage and not just that part of the disadvantage which relates to the outpayments to BT. For example, BT should adjust the charges to CPSOs so that they face the same cost that they would face if each own-local exchange call was using only LECO and LECT stick. Ofcom considers that BT's local tandem conveyance (LTC) costs should be used a proxy for the costs of a reasonably efficient CPSO in calculating the adjustment for the tromboning of the call.

5.30 That is, BT should provide a credit to CPSOs on the following basis:

- for same-DLE calls the credit should comprise LTC, LTC Stick and DLE processor (this is the difference between LECT and LECT Stick, i.e. LECT and LECO use two DLE processors, whereas LECT Stick does not use a DLE processor);
- for adjacent directly-connected-DLE calls the credit should comprise LTC and LTC Stick, minus LLC Stick, i.e. it is replicating the circumstance where the CPSO will not be using the equivalent of LTC or LTC Stick to carry calls to the tandem layer, but will be using the LLC Stick .

5.31 On the basis of the figures provided by BT in its response, Ofcom has calculated the these credits as:

- for same-DLE calls, the credit will be 0.176 ppm; and
- for adjacent directly-connected calls, the credit will be 0.0805 ppm.

5.32 It should be noted that these credits exclude PPP (which is the subject of a separate consultation and final statement). However, Ofcom notes that the CPSO will also be credited for one PPP charge, in line with the PPP consultation. Additionally, Ofcom notes that these calculations are based on BT's latest figures for the 24-hour average cost; in reality, these charges will be calculated in line with the time of day gradient. In addition, they will be adjusted in line with changes to charges as a result of charge controls.

5.33 Ofcom considers that this adjustment will redress the local call disadvantage in the short term in the absence of the SAD call routing option. Ofcom also considers that it will provide BT with an incentive to deliver the new functionality as soon as practicable.

5.34 Ofcom understands from BT that the interim adjustment will be based on an automated analysis of offline CDRs. That is, BT will analyse CPSOs' actual calls, cross reference these calls against DLE-interconnection and the routing of these calls, and will apply the interim adjustment as described above for SAD calls.

5.35 BT has stated that it has been collecting this information from 1 July 2004 in order to be able to carry out this adjustment. The first adjustment will be made in late August, but will cover the period from 1 July. BT has told Ofcom that it intends to carry out the analysis of the interim adjustment and issue credit notes (redeemable against CPS charges) for the value of the interim adjustment within one week of the end of the billing period to which it relates. Ofcom's view is that this is an appropriate solution.

Cost recovery

5.36 Ofcom considers that the costs of the development of the new SAD call routing option will be system set-up costs. Therefore, Ofcom considers that these new system set-up costs should be recovered in the same way as earlier set-up costs.

5.37 There is already an existing pence-per-minute surcharge by means of which BT is recovering its previous CPS system set-up costs. Ofcom considers that the system set-up costs for the SAD call routing option should be added to the costs to be recovered by means of this existing surcharge on all BT-originated "Relevant Calls", i.e. all calls which originate on BT's network and that are of a type that are available for selection in accordance with the CPS Functional Specification. Ofcom considers that the period of the CPS levy should be extended to recover these additional costs.

Detailed implementation issues

Billing arrangements

5.38 Ofcom notes that once the new routing options are implemented CPSOs will no longer have direct visibility of SAD calls as these calls will be routed solely on BT's network. Ofcom considers that BT Wholesale should use the same billing arrangements for the new SAD call routing option as it does for the analogue WLR product, i.e. the GenIUS billing system. Ofcom considers that this is a proven billing system for which several CPSOs have already developed compatible systems as a result of their interest in WLR.

5.39 The GenIUS billing platform provides a source for CPSOs to extract Daily Billable Call Records and data to assist in identifying fraud activities (the four hourly fraud feed). This will enable CPSOs to onward bill on the same timeframe as they usually would.

5.40 Non-SAD traffic will continue to be billed by BT's INCA billing system as currently. It would not be appropriate for SAD calls to be billed via INCA, since INCA is designed only to bill for interconnect traffic and does not provide the full functionality (e.g. fraud detection) that is necessary for calls routed end-to-end on BT's network.

Transparency of information

5.40 Currently BT does not detail which DLEs are directly connected in the NIPP or EBC data provided to communications providers. In its response to the June consultation, BT acknowledged that this information would be required by CPSOs for interconnect planning and for billing reconciliation. Therefore, BT stated that it will enhance the NIPP and EBC data to include this information. BT stated that these files would be made available prior to the launch of the new routing options.

5.41 Ofcom considers that it is essential that this information is provided to CPSOs as soon as possible. Ofcom considers that it is not acceptable that this information may not be provided until just prior to the launch of the new routing options as:

- the timescales for network planning and development are significant and CPSOs should be given reasonable notice; and
- CPSOs should be able to carry out billing reconciliation for the interim adjustment.

5.42 Ofcom considers that BT must already have this information for its own purposes and therefore it would be relatively simple and quick for BT to add this information to the NIPP data. Modifying EBC is somewhat more complex. Therefore, Ofcom considers that BT should add this information to NIPP by the end of August 2004, and to EBC as soon as is practical thereafter.

Product development and timescales

5.43 In the June consultation, Ofcom stated that it expected the final solution would be launched by the end of 2004, and preferably earlier. Since the closure of the consultation period Ofcom has had further discussions with BT Wholesale regarding the timescale for implementation of the SAD call routing option and associated billing and systems.

5.44 BT Wholesale has stated that due to technical issues it does not believe that it will be possible to launch the new routing options by the end of 2004.

5.45 Ofcom is disappointed that implementation of the SAD call routing option will not be completed by the end of 2004. However, Ofcom acknowledges that the work poses significant technical and operational challenges. Therefore, Ofcom considers that the SAD call routing option should be substantially in place within the first quarter of 2005.

5.46 As set out in the June consultation, Ofcom considers that there would be significant benefits in CPSOs being closely involved in the development of the SAD call routing option to ensure that functionality such as billing, fraud detection, gateways and so on is implemented in a way that is reasonable for both BT and CPSOs. Therefore, Ofcom has established a working group of CPS and WLR Service Providers' Forum to lead on implementation development and monitoring.

Number portability

5.47 Both BT and C&W have raised issues regarding the interaction of the SAD call routing option with number portability.

5.48 Ofcom notes that according to the Number Portability Functional Specification Section 2 Rule 2 where BT has imported a customer (e.g. an ex-cable customer that has kept their cable number), where the imported number being called is hosted on the same exchange as the calling customer, BT is required to deliver, identify, route and terminate the calls without tromboning it back to the cable operator. That is, the call is treated by BT exactly the same as if it was a BT-to-BT call originating and terminating on the same exchange, without being routed to the tandem layer. Therefore, Ofcom would consider such calls to be included in the scope of the SAD call routing option.

5.49 Ofcom does recognise that there may be certain issues regarding calls to imported numbers on an adjacent directly-connected DLE, as these calls may be routed via the tandem layer and in all probability be tromboned back to the donor network, e.g. a cable operator's network. If these types of calls are routed via the tandem layer, Ofcom considers that they would fall outside the scope of the SAD call routing option.

5.50 Ofcom considers that these issues regarding number portability are deserving of further investigation and that they will be most appropriately dealt with in the SPF implementation working group.

Other communications providers' fixed geographic termination charges

5.51 In its response, BT set out how it proposed to treat local call product calls for the purposes of calculating other communications providers' fixed geographic call termination charges. As the intention behind the SAD call routing option is to address the local call disadvantage that currently exists for calls that remain on the same DLE or route via a DLE that is directly connected to the originating DLE, BT proposes to treat these calls as DLE-terminated minutes for the purposes of the Reciprocity Agreement.

5.52 Ofcom considers that this is a common sense approach. If these calls were treated in any other way the introduction of the local call product would have an unintended knock-on effect. For example, if these calls were not treated as interconnection minutes, other communications providers would indirectly be sending less minutes to BT at the DLE level and this would increase their average termination outpayments to BT. Ofcom is therefore of the view that BT's proposal accurately reflects the policy intention.

Communications Act tests

5.53 In making decisions Ofcom is required to meet various tests set out in the Communications Act 2003 ('the Act'). These tests and Ofcom's assessment of how these are met are set out below.

Section 3 – Ofcom's general duties

5.54 Section 3 of the Act sets out the duties of Ofcom. Ofcom is required by this section to carry out its functions in line with these duties.

5.55 Ofcom considers that its decision to modify the CPS Functional Specification for BT to allow for a SAD call routing option falls within the scope of Section 3 of the Act. In particular, Ofcom considers that the following duties are appropriate to this issue:

- Section 3(1)(b) states that Ofcom should "further the interests of consumers in relevant markets, where appropriate by promoting competition";
- Section 3(2)(b) states that Ofcom is required to secure "the availability throughout the United Kingdom of a wide range of electronic communications services";
- Section 3(4)(b) states that Ofcom must have regard to "the desirability of promoting competition in relevant markets"; and
- Section 3(4)(d) states that Ofcom must have regard to "the desirability of encouraging investment and innovation in relevant markets".

5.56 Ofcom considers that by addressing the local call disadvantage so as to promote competition the SAD call routing option will, among other things, further the interests of consumers. Additionally, by rewarding investment in network infrastructure the SAD call routing option will both encourage investment and allow for innovation.

Section 4 – European Community requirements for regulation

5.57 Section 4 of the Act requires Ofcom to act in accordance with the six European Community requirements for regulation. In summary these requirements are to:

- promote competition in the provision of electronic communications networks and services, associated facilities and the supply of directories;
- contribute to the development of the European internal market;
- promote the interests of all persons who are citizens of the European Union;
- not favour one form of or means of providing electronic communications networks or services, i.e. to be technologically neutral;
- to encourage the provision of network access and service interoperability for the purpose of securing:
 - efficient and sustainable competition; and
 - the maximum benefit for customers of Communications Providers;
- encourage compliance with certain standards in order to facilitate service interoperability and secure freedom of choice for the customers of Communications Providers.

5.58 Ofcom considers that a SAD call routing option will – by addressing the local call disadvantage for DLE-interconnected CPSOs – promote efficient and sustainable competition in the provision of electronic communications networks and services by allowing CPSOs that have invested in reach and scale to compete with BT in the provision of local calls. Ofcom also considers that this is the most proportionate way in which to encourage and promote efficient and sustainable competition.

Section 49 – the setting of directions

5.59 Respectively, Section 49 of the Act requires Ofcom to ensure that any direction it gives is:

- objectively justifiable in relation to the networks, services, facilities, apparatus or directories to which it relates;
- not unduly discriminatory against particular persons or against a particular description of persons;
- proportionate to what it is intended to achieve; and
- transparent in relation to what it is intended to achieve.

5.60 Ofcom is giving a direction amending BT's CPS Functional Specification to reflect the implementation of the SAD call routing option. As discussed above, Ofcom considers that the SAD call routing option – and therefore the necessary amendments to the CPS Functional Specification – is objectively justifiable to redress the significant and intrinsic local call disadvantage.

5.61 Ofcom considers that the SAD call routing option is not unduly discriminatory because it requires equivalence between BT and CPSOs that have interconnected at the DLE for the provision of local calls. The exclusion of non-DLE interconnected CPSOs is not unduly discriminatory because these companies have made no attempt to address that part of the tromboning problem which is within their control. Therefore their business case does not depend materially on resolution of this issue. Additionally, Ofcom considers that not requiring Kingston Communications to offer the SAD call routing option is not unduly discriminatory, as Kingston Communications has not received any requests for interconnection from CPSOs wishing to offer CPS in the Hull area.

5.62 Ofcom considers that the SAD call routing option is proportionate because it directly addresses the local call disadvantage only for those companies that have invested in connecting to the DLE. It would be disproportionate to require BT to provide this service to CPSOs or resellers that do not interconnect at the DLE.

5.63 Ofcom considers that these changes are transparent because they are clearly set out in this document and Ofcom has consulted upon them.

Obligation to inform the Commission, other National Regulatory Authorities and the Secretary of State

5.64 Pursuant to section 50 of the Act, a copy of the direction has been sent to the European Commission, other NRAs and the Secretary of State.

Annex 1

Responses to the consultation

Ofcom received responses to the consultation of 4 June 2004 from the following respondents:

- BT;
- Cable & Wireless;
- Caudwell Communications;
- Centrica Telecom;
- Energis;
- European Commission;
- Gamma Telecom;
- Kingston Communications;
- Opal Telecom;
- Telewest;
- Thus; and
- Your Communications.

Annex 2

Direction

Direction: BT's Carrier Pre-selection Functional Specification

Direction modifying a Direction given under section 49 of the Communications Act 2003 and Condition AA8 imposed on British Telecommunications plc ('BT') as a result of the market power determinations made by the Director General of Telecommunications that BT has significant market power in the market for call origination on fixed public narrowband networks for the UK (excluding the Hull Area)

WHEREAS:

(A) as a result of a market analysis carried out by the Director General of Telecommunications (the 'Director'), he proposed on 26 August 2003 (the 'First Notification') in accordance with sections 48(2) and 80 of the Act that BT has significant market power in the market for call origination on fixed public narrowband networks for the UK (excluding the Hull Area);

(B) the Director having considered every representation duly made, and thereafter on 28 November 2003 pursuant to sections 48(1) and 79 of the Act by way of publication of a Notification identified the relevant services markets, made market power determinations to the effect referred to in recital (A) above and set certain SMP conditions on BT to take effect on 28 November 2003, unless otherwise is stated in Schedule 1 thereto, such as, in the case of BT, Condition AA8 which imposes obligations concerning Carrier Preselection etc.;

(C) on 28 November 2003, the Director also gave a Direction under Condition AA8 pursuant to section 49 of the Act which set out the Carrier Pre-selection Functional Specification (the 'Original Direction');

(D) this modified Direction concerns matters to which Condition AA8 relates and, in particular, the manner in which Carrier Pre-selection and Carrier Preselection Interconnection Facilities are to be made available in accordance with that Condition and modifies the Original Direction;

(E) the Carrier Pre-selection Functional Specification is a document, which specifies technical and other principles which are intended to effect the efficient implementation and utilisation of Carrier Pre-selection and Carrier Pre-selection Interconnection Facilities, as may be directed by Ofcom from time to time for the purposes of BT complying with its respective obligations under that Condition;

(F) for the reasons set out in Section 5 of the explanatory statement accompanying this modified Direction, Ofcom are satisfied that, in accordance with section 49(2) of the Act, this Direction is:

- (i) objectively justifiable in relation to the networks, services, facilities, apparatus or directories to which it relates;

(ii) not such as to discriminate unduly against particular persons or against a particular description of persons;

(iii) proportionate to what it is intended to achieve; and

(iv) in relation to what it is intended to achieve, transparent;

(G) for the reasons set out in Section 5 of the explanatory statement accompanying this modified Direction, Ofcom have considered and acted in accordance with the six Community requirements set out in section 4 of the Act and their duties in section 3 of the Act;

(H) on 4 June 2004, Ofcom published a notification of the proposed modified Direction in accordance with section 49 of the Act;

(I) Ofcom has considered every representation about the proposed modified Direction duly made to them; and

NOW, therefore, pursuant to section 49 of the Act and Condition AA8 in Schedule 1 to The Notification, Ofcom gives the following modification to the Original Direction:

1. The Carrier Pre-selection Functional Specification for BT as set out in the Schedule to the Original Direction shall be replaced with the BT Carrier Pre-selection Functional Specification as set out in the Schedule to this Direction.

2. For the purpose of interpreting this modified Direction, the following definitions shall apply:

(a) "Act" means the Communications Act 2003 (c. 21);

(b) "BT" means British Telecommunications plc, whose registered company number is 1800000, and any of its subsidiaries or holding companies, or any subsidiary of such holding companies, all as defined by section 736 of the Companies Act 1985, as amended by the Companies Act 1989;

(c) "Director" means the Director General of Telecommunications as appointed under section 1 of the Telecommunications Act 1984;

(d) "Kingston" means Kingston Communications (Hull) plc, whose registered company number is 2150618, and any of its subsidiaries or holding companies, or any subsidiary of such holding companies, all as defined by section 736 of the Companies Act 1985, as amended by the Companies Act 1989; and

(e) "The Notification" means the Notification referred to in recital (B) of this modified Direction above.

3. Except insofar as the context otherwise requires, words or expressions shall have the meaning assigned to them in this Direction and otherwise any word or expression shall have the same meaning as it has in The Notification and otherwise any word or expression shall have the same meaning as it has in the Act.

4. For the purpose of interpreting this modified Direction:

(a) headings and titles shall be disregarded; and

(b) the Interpretation Act 1978 (c. 30) shall apply as if this Direction were an Act of Parliament.

5. This Direction shall take effect on the day it is published.

6. The Schedule to this Direction shall form part of this Direction.

Steve Unger

**A person authorised by Ofcom under paragraph 18 of the Schedule to the
Office of Communications Act 2002
30 July 2004**

Schedule

BT's Carrier Pre-selection Functional Specification Issue No.2

30 July 2004

Contents

- Purpose of this document
- Scope
- Definitions
- Interpretation
- Subscriber Options
- Routing
- Override
- Billing

Purpose of this document

1. Carrier Pre-selection is a facility offered to Subscribers which allows them to opt for certain defined classes of calls (see under 'Subscriber Options' below) to be carried by a provider of a Public Telephone Network selected in advance (and having a contract with its Subscriber), without having to dial a routing prefix or follow any other different procedure to invoke such routing. Carrier Pre-selection can be overridden by dialling an Indirect Access Code of another provider of a Public Telephone network (again where there is a contract between the Subscriber and the provider).
2. Carrier Pre-selection must be provided by the relevant Dominant Provider to any of its Subscribers upon request in accordance with this Carrier Pre-selection Functional Specification under obligations imposed on such a Provider under UK legislation implementing the provisions of Article 19 of the Universal Services Directive (2002/22/EC) (see further about those provisions under 'Scope' below). The Dominant Provider must also provide Carrier Pre-selection Facilities in accordance with this Functional Specification under above-mentioned obligations.
3. The Carrier Pre-selection Functional Specification sets out technical and other principles which are intended to effect the efficient implementation and utilisation of Carrier Pre-selection and Carrier Pre-selection Facilities.

Scope

4. Article 19(1) of the Universal Service Directive provides that "National regulatory authorities shall require undertakings notified as having significant market power for the provision of connection to and use of the public telephone network at a fixed location in accordance with Article 16(3) to enable their subscribers to access the services of any interconnected provider of publicly available telephone services: (a) on a call-by-call basis by dialling a carrier selection code; and (b) by means of preselection, with a facility to override any pre-selected choice on a call-by-call basis

by dialling a carrier selection code.” In the United Kingdom, that provision is implemented into UK legislation through the imposition of significant market power (SMP) conditions, which impose obligations relating inter alia to Carrier Pre-selection etc on the Dominant Provider.

5. Carrier Pre-selection and Carrier Pre-selection Facilities must be provided by the following Dominant Provider:

- BT.

6. The Dominant Provider shall be required to provide Carrier Pre-selection Interconnection Facilities to CPS Providers only.

7. The Dominant Provider shall provide, on request, Carrier Pre-selection to all Subscribers on Exchange Lines, including the integrated services digital network (ISDN) and Centrex lines. However, the Dominant Provider is not required to provide either Carrier Pre-selection or Carrier Pre-selection Facilities in relation to lines on special schemes to assist Consumers who have difficulty affording telephone services.

Definitions

8. The following words or expression in this Carrier Pre-selection Functional Specification shall have the meaning ascribed hereunder:

Access Code

This term shall have the meaning given to the term Access Code in the National Telephone Numbering Plan.

BT

British Telecommunications plc, whose registered company number is 1800000, and any of its subsidiaries or holding companies, or any subsidiary of such holding companies, all as defined by section 736 of the Companies Act 1985, as amended by the Companies Act 1989.

CPS Code

This term shall have meaning given to the term Carrier Pre-Selection Code in the National Telephone Numbering Plan.

CPS Provider

A Pre-selected Provider that has established Points of Connection with the Dominant Provider, either directly or via a Transit Provider, and has been allocated a CPS Code by Ofcom.

Indirect Access

A facility which allows a Subscriber to whom a Publicly Available Telephone Service is provided by means of a Public Telephone Network to select which such Service provided wholly or partly by means of that Network is the

service he wishes to use by the use of a telephone number on each separate occasion on which a selection is made.

Indirect Access Code

A type of Access Code used to provide Indirect Access.

Indirect Access Provider

A provider of Indirect Access services.

Kingston

Kingston Communications (Hull) plc, whose registered company number is 2150618, and any of its subsidiaries or holding companies, or any subsidiary of such holding companies, all as defined by section 736 of the Companies Act 1985, as amended by the Companies Act 1989.

National Telephone Numbering Plan

The National Telephone Numbering Plan published from time to time by Ofcom pursuant to sections 56 and 60 of the Act 2003.

Point(s) of Connection

A point at which one Public Telephone Network is connected to another.

Transit Provider

A transit provider is a Communications Provider, which for clarification is not the Dominant Provider, which directly connects the Dominant Provider's network to the network of a CPS Provider for the purposes of the conveyance of CPS calls.

Type B Indirect Access Code

A type of Access Code allocated to individual Public Communications Providers to be used for the provision of Indirect Access.

Interpretation

9. Except in so far as the context otherwise requires, words or expressions in this Carrier Pre-selection Functional Specification shall have the meaning ascribed to them under paragraph 8 above, and otherwise any word or expression shall have the meaning as it has for the purposes of the SMP conditions concerning Carrier Preselection etc imposed on Dominant Providers pursuant to section 45 of the Communications Act 2003 (c. 21) (which are Condition AA8, in the case of BT, at the time of the publication of this Issue No.2 of the Specification) or, if it has no meaning ascribed thereunder and if the context so permits, in the Communications Act 2003 (c. 21).

10. The Interpretation Act 1978 (c. 30) shall apply for the purpose of interpreting this Carrier Pre-selection Functional Specification as if it were an Act of Parliament.

11. For the purposes of interpreting this Carrier Pre-selection Functional Specification, headings and titles shall be disregarded.

Subscriber Options

12. Subscribers opting to use Carrier Pre-selection may select from the following options:

- (i) Option 1: international calls;
- (ii) Option 2: national calls;
- (iii) Option 3: all calls (including international, national, local, mobile, non-geographic (eg freephone, local rate, national rate), premium rate, personal, paging and 118XXX codes for Directory Enquiry Facilities);

13. If a Subscriber selects Options 1 and 2 (see paragraphs 12 (i) and (ii) above), he can have calls from both options carried either by the same CPS Provider or by different CPS Providers. Neither Options 1 and 3, nor Options 2 and 3, may be combined on the same line.

14. Carrier Pre-selection shall not apply to calls using Type A Access Codes (eg 100, 112, 192), Type C (operator specific) Access Codes or the 0844 04yyxxx and 0808 99yyxxx number ranges used for unmetered Internet access (with unmetered interconnect) or any other number range used for unmetered Internet access with unmetered interconnect. Nor shall Carrier Pre-selection apply to the '999' code.

15. Where no option is selected by the Subscriber, relevant calls shall be routed according to the decision of the Dominant Provider.

16. Local calls shall be deemed to be calls to those geographic destinations which are charged at local rate by the Dominant Provider.

Routing

17. Where a Subscriber has elected to have calls routed by Carrier Preselection, the following shall apply:

- (i) calls to numbering ranges subject to Carrier Pre-selection (see under 'Subscriber Options' above) shall be routed according to the Subscriber's selected CPS Provider to an agreed Point of Connection; and
- (ii) calls to numbering ranges excluded from the particular Subscriber option(s) selected shall not be affected;

except where the CPS Provider selects that those calls that originate on any of the Dominant Provider's DLEs and terminate on the same DLE or on an adjacent directly-connected DLE shall be routed end-to-end over the Dominant Provider's network. This routing option is only available for selection by the CPS Provider at those originating DLEs of the Dominant Provider where the CPS Provider is interconnected and where substantially all of their remaining CPS calls are handed over at the DLE to the CPS Provider.

18. Where a call is to be routed by Carrier Pre-selection across the Point of Connection, the Dominant Provider shall prefix the Subscriber's dialled digits with the CPS Code before passing the call across the Point of Connection. The CPS Code ensures routing through the Dominant Provider's Public Telephone Network to the Point of Connection.

19. Where a pre-selected call is dialled using the local dialling format and the call is to be routed across the Point of Connection, the Dominant Provider must insert the leading zero and area code between the CPS Code and the dialled Telephone Number.

20. Carrier Pre-selection shall not apply to operator controlled calls, including (but not limited to) transfer charge calls. Operator and other special services of CPS Providers shall be accessed using the appropriate Indirect Access Code.

Override

21. Calls using Type B Indirect Access Codes shall override options for Carrier Preselection and route to the Indirect Access Provider identified by that code, without alteration to the digit string dialled by the Subscriber (for the avoidance of any doubt, it should be noted that this does not include 118XXX DQ codes).

Billing

22. Responsibility for billing the calling Subscriber for Carrier Pre-selection calls rests with the CPS Provider. Where no pre-selection or other form of selection has been made by the calling Subscriber, the Dominant Provider will bill for those calls.

Annex 3

Glossary

Digital Local Exchange (DLE)

– the telephone exchange to which customers are directly connected, often via a remote concentrator unit.

Digital Main Switching Unit (DMSU)

– a tandem exchange primarily used for connecting calls between DLEs.

IEC

– Interconnection Extension Circuit.

Inter-tandem conveyance

– Interconnection service that involves the use of a tandem switch and transmission between two tandem switches. It is sub-divided into three distance bands.

Inter-tandem transit

– Interconnection service that involves the use of two tandem switches and one inter-tandem transmission link. It is sub-divided into three distance bands.

Interconnection

–the linking (whether directly or indirectly by physical or logical means, or by a combination of physical or logical means) of one Public Electronic Communications Network to another for the purpose of enabling the persons using one of them to be able:

- (a) to communicate with users of the other one; or
- (b) to make use of services provided by means of the other one (whether by the provider of that Network or by another person);

ISI

– In-Span Interconnect.

Outpayments

– these are the payments made by one network operator to another for the purpose of conveying messages between the two systems.

Points of Connection (POC)

– also known as a Switch Connections ie where an operator's network interconnects with BT usually at a Digital Main Switching Unit (DMSU) or Wide Area Tandem (WAT). Points of connection with BT in the context of Oftel's Direction of BT's NTS Conveyance refer only to switch connections carrying NTS calls where the links were ordered by the operator and agreed with BT according to forecasts of capacity requirements provided by the operator. The operator will also have paid any appropriate charges. Circuits provided by BT for its own network management purposes, referred to as NTS Extension Circuits (NTSECs), do not qualify as they are not a BT standard interconnection product. These are distinct from Interconnection Extension Circuits (IECs) which are a BT Standard Service.

STP

– Signalling Transfer Point – A facility whereby C7 signalling messages can be passed between exchanges without requiring a discrete circuit between them.

Tandem exchange

– A main exchange in BT's network which has the primary function of switching calls between other exchanges, rather than to and from customers' exchange lines.