

Ofcom's Telephone Numbering Data

Problems and Remedies

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Section 1: Errors and omissions in the National Telephone Numbering Plan and in associated allocation documents

1.1 – The move from location-based to provider-based number allocations

The numbering plan used to be very logical on a local level. Within each OSABC area code, local numbers were usually allocated in blocks of 10 000, and each block was identified by the DE digits. Most area codes contained between five and fifteen BT exchanges, and each exchange had their own blocks of numbers, often consecutive.

Local residents could identify the individual locality for local numbers by looking for these DE digits. There were a large number of free blocks in most area codes, with some 780 000 numbers possible within each one (actually closer to 680 000, while local short code dialling was still in effect).

When the market was opened up to alternative operators in the 1990s, all of the prior careful planning went out of the window. Suddenly, cable operators were issued a block of numbers, but they used it across the whole of the area code. When that block ran out, they applied for another one and used that across the whole area too. Suddenly the local significance of the DE digits had begun to be lost. Additionally, some cable operators drew their area code boundaries slightly different to BT's scheme.

On further deregulation, there seemed to be a mad rush for numbers. Suddenly dozens of companies each laid claim to a block of numbers in almost every area code. Within a few years the UK was apparently running out of numbers, and yet if you investigate how many of these numbers are actually in use, then the answer is very few. It appears that some companies have reserved blocks of ten (or latterly, one) thousand numbers in every area code, and yet across many dozens of those area codes not a single one of those alternative-operator local numbers are actually in service.

Ofcom has applied Number Conservation status to most of the UK number blocks (certainly in the majority of the “4+6” and “5+5” areas), recently reducing the allocation size to 1000 from 10000. These number blocks are still being reserved at a rapid rate – and yet in the last few years, the number of active landlines in the UK has decreased by 5%. This has happened as people give up their second line, previously used for dial-up internet access and/or for fax machines, and as they switch to broadband. It's also happened as some households switch to mobile-only services.

Most OSABC area codes used to have a maximum of about 60 to 70 “DE” blocks in service, each identifying a locality. Nowadays each OSABC area code has close to 800 “F” blocks allocated, but with no discernible geographic logic as to how they have been issued. Additionally, much of the number space they represent is actually lying dormant and unused.

Take one rural area in northern England as an example. The population is just under 20 000, spread across several towns and very many villages. The extended area is served by at least five named BT exchanges, with close on 6 000 active BT numbers spread over about 25 blocks of 1K size.

However, just short of 50 non-BT operators have laid claim to just over 260 blocks of 1000 numbers (some had already been issued with 10K number blocks a few years ago). So, 260 000 numbers have been “hoarded” in an area where there are only about 6000 lines actually in use. It is clear that the vast amount of this numbering capacity is wasted, most non-BT operators using under 3% of their allocation and many using none of it at all.

It would make an interesting study for Ofcom to pick several dozen areas of the UK, list all operators with allocated number blocks, and then count how many of the numbers they each hold are actually in service.

1.2 – Accuracy of numbering plan and number allocation data

[sabc.txt](#) / [sn_code.txt](#) / [numplan280710.pdf](#)

The weekly updates to the number allocation data published by Ofcom are certainly timely, but there are a number of long standing errors, and various inconsistencies and several typos within the data.

This would be an ideal time to also review those problems and fix all of them. Some of those errors also reflect back into the **numbering plan**, leading to omission or ambiguity there.

The various errors, omissions and spelling mistakes are covered in detail in the remaining sections of this response.

Finally, while editing the Numbering Plan, there's an opportunity to also fix the typeface used on page 18, specifically the one used for paragraph B3.7.1 – e).

1.3 – Area code spelling mistakes and naming errors

sabc.txt / numplan280710.pdf

Regarding the UK **numbering plan** and the **sabc.txt** file, it is important the information is clearly presented, is as accurate as possible and is kept up-to-date. That said, the data contains a number of significant typos and errors.

Code	Geographic Area	Code	Geographic Area
01271	Barnstable	01482	Hull
01284	Bury–St–Edmunds	01559	Llandyssul
01286	Caernarvon	01636	Newark
01289	Berwick–on–Tweed	01934	Weston–Super–Mare

There are several listed place names containing a spelling mistake or naming error. The errors are shown in red.

The correct spelling for each is detailed in the table below:

Code	Geographic Area	Code	Geographic Area
01271	Barnstaple	01482	Kingston–upon–Hull
01284	Bury St Edmunds	01559	Llandysul
01286	Caernarfon	01636	Newark–on–Trent
01289	Berwick–upon–Tweed	01934	Weston–super–Mare

These errors should be fairly simple to fix; they are mostly basic spelling or typographical mistakes.

1.4 – Inconsistent area code naming

sabc.txt / numplan280710.pdf

There are several area codes where the area code name appears to differ between the **numbering plan** and the **sabc.txt** file.

One or other name is obviously in error. These areas are detailed in the table below, with the errors shown in red.

Code	numplan280710.pdf	“sabc.txt” file	Code	numplan280710.pdf	“sabc.txt” file
01491	Henley–on–Thames	Henley on Thames	019467	Gosforth	Gosforth (mixed)
015395	Grange–Over–Sands	Grange over Sands	028 43	Newcastle (Co. Down)	Newcastle
01877	Callandar	Callander	028 90	Belfast	Belfast City
01889	Rugely	Rugeley	028 91	Bangor (Co. Down)	Bangor

The above place names should be consistent in all Ofcom data files.

The “015395” area code name is incorrect in both files. This name should be “Grange–over–Sands”.

This level of inattention to detail causes software using this data to regularly “fall over” unless the data is manually edited before use.

1.5 – Duplicate entries for “1134 1 – Leeds” and for “1152 0 – Nottingham”

sabc.txt

In the **sabc.txt** file, some entries for Leeds and for Nottingham (detailed below) are duplicated, and have been since 2008.

1134	1	Designated	Leeds		3 Digit Area Code
1134	1	Designated	Leeds Expansion		3 Digit Area Code
1152	0	Designated	Nottingham		3 Digit Area Code
1152	0	Designated	Nottingham		3 Digit Area Code

One of the two entries for each area should be deleted.

1.6 – Unnecessary additional breakdown of “011X” and “01X1” area codes

sabc.txt

In the **sabc.txt** file, some entries for Leeds and for Nottingham are unnecessarily further broken down to “D” digit level.

1130		Designated	Leeds National Dialling		3 Digit Area Code
1131		Designated	Leeds National Dialling		3 Digit Area Code
1132		Designated	Leeds		3 Digit Area Code
1133		Designated	Leeds		3 Digit Area Code
1134	0	Designated	Leeds		3 Digit Area Code
1134	1	Designated	Leeds		3 Digit Area Code
1134	2	Designated	Leeds Expansion		3 Digit Area Code
1134	3	Designated	Leeds Expansion		3 Digit Area Code
1134	4	Designated	Leeds Expansion		3 Digit Area Code
1134	5	Designated	Leeds Expansion		3 Digit Area Code
1134	6	Designated	Leeds Expansion		3 Digit Area Code
1134	7	Designated	Leeds Expansion		3 Digit Area Code
1134	8	Designated	Leeds Expansion		3 Digit Area Code
1134	9	Designated	Leeds Expansion		3 Digit Area Code
1135		Designated	Leeds Expansion		3 Digit Area Code
1136		Designated	Leeds Expansion		3 Digit Area Code
1137		Designated	Leeds Expansion		3 Digit Area Code
1138		Designated	Leeds		3 Digit Area Code
1139		Designated	Leeds Expansion		3 Digit Area Code

There is absolutely no need to specify the “D” digit for any of the listings in 2 or 3 digit code areas (it is especially not needed for any of the “011X”, “01X1” and “02X” area codes) as it leads to massive and unnecessary repetition: a hundred identical lines per area code for “011X” and “01X1” area codes, and a thousand lines per area code for 02X area codes.

The “D” digit only needs to be specified for “mixed 4 and 5 digit” code areas and for the various 4 digit “ELNS” area codes.

1.7 – Duplicate entry for “1246 – Chesterfield”

sabc.txt

In the **sabc.txt** file, the entry for Chesterfield (detailed below) is duplicated, and has been since late 2007.

1246		Designated	Chesterfield		
1246		Designated	Chesterfield	Y	

One of the two entries should be deleted.

A similar error in the “1686 4 – Llanidloes – ELNS” entry was also corrected in recent weeks.

1.8 – The 01333 and 01334 area codes

sabc.txt / numplan280710.pdf

The **numbering plan** and **sabc.txt** file both currently contain these entries for “Peat Inn” and for “St Andrews”:

01333	Peat Inn	Y
01334	St Andrews	Y

The village of **Peat Inn** is actually located within the “**01334**” area. The main settlement in that part of Fife is **St Andrews**.

Naming the “01333” area code as “Peat Inn” appears to be incorrect.

It is suggested that the **01333** area code use the name “**Leven (Fife)**” instead, as shown in the table extract below:

01333	Leven (Fife)	Y
01334	St Andrews	Y

In the local area, these two allocations have caused a great amount of confusion.

1.9 – 01507 area code naming

sabc.txt / numplan280710.pdf

The **numbering plan** and **sabc.txt** file both currently contain these two entries for Spilsby:

01507	Alford (Lincs) (4,8,9) Louth (3,6,7) Spilsby (2,5)	Y
01790	Spilsby	Y

In a previous consultation response, in 2003, BT said:

“01507 - contains two rather than three charge groups. 01507 5, like the rest of the range bar Alford, is Louth, and not Spilsby - Spilsby is 01790. The reference to Spilsby should be deleted (from 01507).”

See page 7 of the document found at:

www.btplc.com/Thegroup/RegulatoryandPublicaffairs/Consultativeresponses/Oftel/2003/Nationaltelephonenumberingplan/response.pdf

In 2010, Spilsby still appears to be listed under both area codes in the numbering plan. Note that some providers have referred to the “(01507) 2” and “(01507) 5” allocations as using the place name “**Horncastle**” in the past.

The table corrected:

01507	Alford (Lincs) (4,8,9) Louth (3,6,7) Horncastle (2,5)	Y
01790	Spilsby	Y

This error has been evident for many years.

1.10 – Duplicate area codes for Newquay

sabc.txt / numplan280710.pdf

The **numbering plan** and **sabc.txt** file both currently contain these two entries for Newquay:

01637	Newquay	Y
01841	Newquay	Y

Newquay is listed both as 01637 and as 01841. That cannot be correct. The number “*Newquay 750000*” is ambiguous.

The **Newquay** exchanges use only **01637**. In a previous consultation response, in 2003, Cable & Wireless suggested:

“1841 - Newquay – consider using Padstow.”

See page 17 of the document found at:
www.ofcom.org.uk/static/archive/oftel/publications/responses/2003/ntmp0303/c&w.pdf

The table corrected:

01637	Newquay	Y
01841	Padstow	Y

This error has been evident for many years.

1.11 – The 01885 and 01886 area codes

sabc.txt / numplan280710.pdf

The **numbering plan** and **sabc.txt** file both currently contain these two entries:

01885	Pencombe	Y
01886	Bromyard	Y

Using the Phone Book, it appears that businesses in **Bromyard** use the **01885** area code. There appear to be no Bromyard businesses using the 01886 area code. The 01886 area code seems to be used in the rural areas to the east of Bromyard.

BT has previously used “**Knightwick**” for **01886**. In a previous consultation response, in 2003, Cable & Wireless suggested:

“01885 should be named Bromyard. 01886 should be given the name Leigh Sinton.”

See page 18 of the document found at:
www.ofcom.org.uk/static/archive/oftel/publications/responses/2003/ntmp0303/c&w.pdf

The table corrected:

01885	Bromyard	Y
01886	Knightwick	Y

In the local area, these two allocations have caused a great amount of confusion.

1.12 – The 016977 Brampton area code

The rules relating number format, area code length, local number length, and the start digit for local dialling are very simple.

Format	Area Code & Number	NSN	Area Code	Code Length	Local Dialling	Local Number	Start Digit
2+8	(0SA) BCDE FGHI	10	0SA	2 digits	BCDE FGHI	8 digits	B
3+7	(0SAB) CDE FGHI	10	0SAB	3 digits	CDE FGHI	7 digits	C
4+6	(0SABC) DEFGHI	10	0SABC	4 digits	DEFGHI	6 digits	D
4+5	(0SABC) DEFGH	9	0SABC	4 digits	DEFGH	5 digits	D
5+5	(0SABCD) EFGHI	10	0SABCD	5 digits	EFGHI	5 digits	E
5+4	(0SABCD) EFGH	9	0SABCD	5 digits	EFGH	4 digits	E

All digits found before (but not including) the “start digit for local dialling” comprise the “area code”. In “mixed” 4 and 5-digit code areas, the “D” digit is the deciding factor as to which area code the number belongs to. This decision cannot, and must not, be made at the “E” digit level. Where two numbers have identical 0SABCD digits, by definition, these two numbers will always belong to the same area code. With 4-digit area codes, the area code will be the (0SABC) digits, and with 5-digit area codes, the area code will comprise the (0SABCD) digits and all local numbers in that 5-digit area code therefore begin with the “E” digit.

Numbers in the Brampton area, and beginning with 016977, are either 5+4 or 5+5 format. Local dialling begins with the E digit.

In 2003, Of tel published a consultation document [ntnp0303.pdf](#), “**Proposal to publish a National Telephone Number Plan**”. In the version dated 2003-03-19, in Appendix A on page 38, the allocation table incorrectly shows the Brampton area code as using 01697, and not the correct entry of 016977:

01697	Brampton
016973	Wigton
016974	Raughton Head

The area code for Brampton was then, and still is, (016977) and not as shown in the above table extract.

In their official response to Of tel's 2003 consultation document, BT said:

“01697 – Brampton should be 016977; not 01697.”

See the comments on page 7 of this document:

www.btplc.com/Thegroup/RegulatoryandPublicaffairs/Consultativeresponses/Of tel/2003/Nationaltelephonenumberingplan/response.pdf.

Of tel seemed to briefly pay attention to this statement made by BT.

In July 2003, the final version of the **numbering plan** ([ntnp_final_c0703.pdf](#) / [num_plan_0703.pdf](#)) contained the correct data as shown in this table extract:

016977	Brampton ✓
016973	Wigton
016974	Raughton Head

The numbering plan is not the only place that records number allocations. There is more detailed data in the **sabc.txt** file, and even more detailed entries in the **s1_code.txt** file. At this point, Of tel should have also fixed the data in all of their other files to match the table in the **numbering plan**, but the opportunity was missed. Only a few months later, all of this data, with a dangerous mix of correct and incorrect entries, was handed to Of com for future maintenance.

After handover, not only was the rest of the data not fixed by Of com; as early as 2004 the data in the **numbering plan** was reverted back to the incorrect version. I'll wager that someone noticed the discrepancies between the data in the various files, and took a guess as to which ones were incorrect – and got it wrong.

The same incorrect data then continued to be shown in all versions of the **numbering plan** from 2004 until the present version published in 2010.

(continued...)

1.12 – The 016977 Brampton area code (cont'd.)

Even today, the **numbering plan** still contains this incomplete entry:

01697	Brampton
016973	Wigton
016974	Raughton Head

Brampton is shown as using the 01697 area code. However, the majority of allocated and in-service numbers within Brampton actually use the “5+4” format for (016977) 2xxx and 3xxx numbers, and “5+5” format for (016977) 4xxxx and 5xxxx numbers.

The **numbering plan** should be amended, as detailed below, to show the correct information:

01697	Brampton (<i>6-fig. numbers only</i>)
016973	Wigton
016974	Raughton Head
016977	Brampton (4 and 5-fig. numbers)

Brampton is the only place in the country that has a mix of 4, 5 and 6 digit local numbers. Since all UK numbers must be 9 or 10 digits long, it is not possible for all of those local number lengths to be accommodated within a single area code.

Referring to the table on the previous page, a 4 digit area code can only be used with 5 and 6 digit local numbers, and a 5 digit area code can only be used with 4 and 5 digit local numbers. Since most Brampton local numbers have 4 or 5 digits, and local dialling begins with the E digit, those numbers must have a 5 digit area code. That area code is 016977.

Additionally, there are some new allocations of 6 digit local numbers beginning 2, 5 and 9 in the Brampton area. Those numbers, and only those numbers, use the separate 01697 area code. Please amend the **numbering plan** to clearly show these two different types of numbers. The current errors in the **numbering plan** can be traced all the way to 2000 and before.

Other places list these post-phONEday area codes as being active in 1995 and 1997:

Exchange name	late-1990s numbering		2010 equiv.
Gilsland	016972	(3 digit numbers)	(016977) 47xxx
Abbeytown	016973		(016973) 6xxxx
Aspatia	016973		(016973) 2xxxx
Kirkbride (Carlisle)	016973		(016973) 5xxxx
Silloth	016973		(016973) 3xxxx
Wigton	016973		(016973) 4xxxx
Southwaite	016974		(016974) 73xxx
Hallbankgate	016976	(3 digit numbers)	(016977) 46xxx
Brampton (Cumbria)	016977	(4 & 5 digit nums.)	(016977) 2xxx (016977) 3xxx (016977) 45xxx
Gilsland	016977	(5 digit numbers)	(016977) 47xxx
Hallbankgate	016977	(5 digit numbers)	(016977) 46xxx
Roadhead	016978		(016977) 48xxx
Armathwaite	016992		(016974) 72xxx
Raughton Head	016996		(016974) 76xxx
Caldbeck	016998		(016974) 78xxx

Leading up to the “Big Number Change” in 2000, many of these allocations were altered in some way. In particular:

- three digit local numbers changed to five-digit local numbers;
- numbers in the 016992, 016996 and 016998 area codes were moved to the existing (016974) area code;
- numbers in the 016972, 016976 and 016978 area codes were moved to the existing (016977) Brampton area code.

In the late 1990s, there were **no** “4+6” allocations beginning “01697”. All allocated numbers were found only in the (016973), (016974) and (016977) area codes. At this point, all numbers beginning “01697X” were “5+5” or “5+4” format only. Most local numbers were 5-digits long, but the (016977) area code also contained a small number of 4-digit local numbers.

(continued...)

1.12 – The 016977 Brampton area code (cont'd.)

sabc.txt

In mid-2000, the `s1_code.txt` file showed the various numbers in the (016973), (016974), and (016977) area codes recorded as:

1697	0	Unusable			
1697	1	Unusable			
1697	2	Unavailable			
1697	3	Allocated		Wigton (Mixed 4/5 Digit Area)	5 Digit Area Code
1697	4	Allocated		Raughton Head (Mixed 4/5 Digit Area)	5 Digit Area Code
1697	5	Unavailable			
1697	6	Unavailable			
1697	7	Allocated		Brampton (Mixed 4/5 Digit Area)	4 Digit Area Code
1697	8	Allocated		Brampton (Mixed 4/5 Digit Area)	4 Digit Area Code
1697	9	Designated			

The table above shows details of number ranges from 016970 to 016979. In 2000, Brampton's numbers used only the “5+4” and “5+5” format in the 016977 range. Local numbers were therefore a mix of 4 and 5 digits, all with the 5 digit 016977 area code.

The “5+4” numbers were using “(016977) 2xxx” and “(016977) 3xxx” and the “5+5” numbers were using “(016977) 4xxxx” and “(016977) 5xxxx”. The above entries in Ofcom's files failed to record that fact. As an area using “5+5” and “5+4” numbers, the “1697 7” entry should have said “5 Digit Area Code”.

By 2000, the (016978) area code was no longer in use, the local numbers having long ago moved from the old 06978 area code to the Brampton 016977 area code, specifically the number range at (016977) 48xxx. Additionally, all of the pre-existing Wigton (016973) and Raughton Head (016974) numbers had already been converted to use only “5+5” format.

In the last decade, the data for these areas has been modified many times, but has never been 100% correct.

The table below shows the correct allocations for the various 016977 number ranges, and then summarises the data for those same ranges as found in Ofcom's “`s1_code.txt`” file from 2000 to 2010, and in Ofcom's “`sabc_de.txt`” file from 2000 to 2003.

Correct allocation details					Ofcom “sabc_de.txt”				Ofcom “s1_code.txt”								
SABC	DE	Netwk	Format	Number Range	2000	2001	2002	2003	2003	2004	2005	2006	2007	2008	2009	2010	2010
1697	70	LSLtd	(0)+10	016977 0xxxx										4+6	4+6	4+6	4+6
1697	71	DaStC	(0)+10	016977 1xxxx							4+6	4+6	4+6	4+6	4+6	4+6	4+6
1697	72	BT	5+4	(016977) 2xxx	4+5	4+5	4+5	5+4	5+4	5+4	4+4	4+4	4+4	4+4	4+4	4+4	5+4
1697	73	BT	5+4	(016977) 3xxx	4+5	4+5	4+5	5+4	5+4	5+4	4+4	4+4	4+4	4+4	4+4	4+4	5+4
1697	74	BT	5+5	(016977) 4xxxx	4+6	4+6	4+6	4+6	4+6	4+6	4+6	4+6	4+6	4+6	4+6	4+6	5+5
1697	75	BT	5+5	(016977) 5xxxx	4+6	4+6	4+6	4+6	4+6	4+6	4+6	4+6	4+6	4+6	4+6	4+6	4+6
1697	76	YCLtd	5+5	(016977) 6xxxx	4+6	4+6	4+6	4+6	4+6	4+6	4+6	4+6	4+6	4+6	4+6	4+6	4+6
1697	77	TTNC	5+5	(016977) 7xxxx								4+6	4+6	4+6	4+6	4+6	4+6
1697	78	Orang	5+5	(016977) 8xxxx								4+6	4+6	4+6	4+6	4+6	4+6
1697	79	Inclari	5+5	(016977) 9xxxx								4+6	4+6	4+6	4+6	4+6	4+6

The data for (016977) 2xxx and (016977) 3xxx numbers was briefly correct in 2003 and early 2004, but was then altered to a totally absurd value (highlighted with a yellow background) in 2005. There are no “4+4” numbers in use anywhere in the UK.

In 2005, Ofcom were obviously convinced that 016977 is a 4 digit area code. However 016977 has been a 5 digit area code since phONEday in 1995, but most of the clues were buried under incorrect data inherited from Ofcom's various old files.

In recent years, the rest of the 016977 numbers have also been allocated. Those beginning “016977 0” and “016977 1” are actually “(0)+10” NDO numbers, but are incorrectly marked as “4+6” format. Those beginning “016977 5” to “016977 9” inclusive are really “5+5” format numbers, but are also incorrectly marked as “4+6” format.

It appears Ofcom had no idea that the data for existing 016977 allocations was incorrect, and has simply assumed the 01697 area code must be right for those new allocations. For all numbers beginning 016977, local dialling begins with the E digit. All numbers beginning 016977 must therefore have a 5 digit area code. The number allocations at “016977 2”, “016977 3” and “016977 4” are the only 016977 numbers that are currently correctly recorded, the data having been finally fixed early in 2010. Hopefully the data for all of the other 016977 number ranges will be corrected very soon.

(continued...)

1.12 – The 016977 Brampton area code (cont'd.)

sabc.txt

In 2000, the **sns_code.txt** file showed the following details:

1697	3	Wigton (Mixed 4/5 Digit Area)	5 Digit Area Code
1697	4	Raughton Head (Mixed 4/5 Digit Area)	5 Digit Area Code
1697	7	Brampton (Mixed 4/5 Digit Area)	4 Digit Area Code
1697	8	Brampton (Mixed 4/5 Digit Area)	4 Digit Area Code

By 2000, the 016978 area code was no longer in use. It had previously been used by the various 06978 Roadhead area numbers, long since migrated to the new (016977) 48xxx range.

Brampton was using only the (016977) area code, and had both “5+5” and “5+4” numbers within. Additionally, both Wigton (016973) and Raughton Head (016974) were using only “5+5” numbers.

In 2001, the file **sabc.txt** had been modified again. The information within was still incorrect, as shown below:

1697	0	Designated	Brampton National Dialling	4 Digit Code
1697	1	Designated	Brampton National Dialling	4 Digit Code
1697	2	Designated	Brampton Expansion	4 Digit Code
1697	3	Designated	Wigton	5 Digit Code
1697	4	Designated	Raughton Head	5 Digit Code
1697	5	Designated	Brampton Expansion	4 Digit Code
1697	6	Designated	Brampton Expansion	4 Digit Code
1697	7	Designated	Brampton	4 Digit Code
1697	8	Designated	Brampton	4 Digit Code
1697	9	Designated	Brampton Expansion	4 Digit Code

The (016978) area code was no longer in use. Brampton was using only the (016977) area code, but with a mix of “5+5” and “5+4” numbering. The entry for “1697 7” therefore should have said “5 Digit Code”.

There were no issues with the Wigton (016973) and Raughton Head (016974) area codes. Both of those areas use only “5+5” format numbering. All of the mis-reporting problems occurred only with the Brampton (016977) area code.

In 2002, the **sabc.txt** file correctly showed the Brampton 5-digit (016977) area code, as seen in the table extract below.

1697	0	Designated	Not in Use	
1697	1	Designated	Not in Use	
1697	2	Designated	Not in Use	
1697	3	Designated	Wigton	5 Digit Code
1697	4	Designated	Raughton Head	5 Digit Code
1697	5	Designated	Not in Use	
1697	6	Designated	Not in Use	
1697	7	Designated	Brampton	5 Digit Code ✓
1697	8	Designated	Not in Use	
1697	9	Designated	Not in Use	

The table extract above is correct. Brampton uses the 5-digit (016977) area code.

In 2002, there were NO “4+6” numbers in use anywhere in the 01697 area. All numbers in 01697 ranges were either:

- “5+5” format within area codes (016973) and (016974), or
- “5+5” or “5+4” format within the (016977) area code.

The table extract above also correctly shows that the 016978 area code is no longer in use. It's a shame that the matching data in the **sabc_de.txt** file was not also corrected at that time. It would have avoided all the problems that were to follow over the next few years, and which are still evident in 2010.

(continued...)

1.12 – The 016977 Brampton area code (cont'd.)

sabc.txt

In late 2003, the **sabc.txt** file reverted to showing the incorrect information again, as detailed in the table below:

1697	0	Designated	Not in Use		
1697	1	Designated	Not in Use		
1697	2	Designated	Not in Use		
1697	3	Designated	Wigton		5 Digit Code
1697	4	Designated	Raughton Head		5 Digit Code
1697	5	Designated	Not in Use		
1697	6	Designated	Not in Use		
1697	7	Designated	Brampton		4 Digit Code
1697	8	Designated	Not in Use		
1697	9	Designated	Not in Use		

This is very odd, because OfTel had only recently put the **numbering plan** right after having this very same error pointed out by BT. However, it looks likely that when OfTel passed their data over to Ofcom in 2003, something was lost along the way.

With **sabc.txt** reverting to incorrect information in 2003, Ofcom then altered the **numbering plan** to also match that incorrect data in the very next version published in 2004. Two steps backward.

In 2004, the file **sabc.txt** continued to record incorrect length for the 016977 Brampton area code as shown below:

1697	0	Designated	Not in Use		
1697	1	Designated	Not in Use		
1697	2	Designated	Not in Use		
1697	3	Designated	Wigton		5 Digit Code Area
1697	4	Designated	Raughton Head		5 Digit Code Area
1697	5	Designated	Not in Use		
1697	6	Designated	Not in Use		
1697	7	Designated	Brampton		4 Digit Code Area
1697	8	Designated	Not in Use		
1697	9	Designated	Not in Use		

In 2005, the **sabc.txt** file continued with similar incorrect information as before. This is detailed in the following table extract.

1697	0	Designated	Not in Use		
1697	1	Designated	Not in Use		
1697	2	Designated	Not in Use		
1697	3	Designated	Wigton		5 Digit Code Area
1697	4	Designated	Raughton Head		5 Digit Code Area
1697	5	Designated	Not in Use		
1697	6	Designated	Not in Use		
1697	7	Designated	Brampton		4 Digit Code Area
1697	8	Designated	Not in Use		
1697	9	Designated	Brampton		

The Brampton (016977) area code continued to be recorded as having only 4-digits. It was, and still is, a 5-digit area code.

Additionally, a new allocation using “4+6” numbering is listed for the “(01697) 9xxxxx” range. This range appears to be called “Brampton”, but Brampton was already using “5+5” and “5+4” number allocations in the (016977) area code. This is a dangerous situation, Brampton now has two area codes: “016977” for 4 and 5 digit numbers, and “01697” for 6 digit numbers.

Over the next few years, the remaining “Not in Use” allocations were also changed to read “Brampton” but the Area Code Length was not filled in for any of those allocations. It is clear that those new allocations will have a 4 digit area code, but the numbers at (016977) were, and still are, “5 Digit Area Code” numbers.

(continued...)

1.12 – The 016977 Brampton area code (cont'd.)

sabc.txt

The 2010 version of the file **sabc.txt** shows Brampton area code lengths as detailed in the table extract below:

1697	0	Designated	Brampton National Dialling		
1697	1	Designated	Brampton National Dialling		
1697	2	Designated	Brampton		
1697	3	Designated	Wigton		5 Digit Code Area
1697	4	Designated	Raughton Head		5 Digit Code Area
1697	5	Designated	Brampton		
1697	6	Designated	Brampton		
1697	7	Designated	Brampton		4 Digit Code Area
1697	8	Designated	Brampton		
1697	9	Designated	Brampton		

The above information is still incorrect. The “1697 7” block is really a “5 Digit Code Area”. It is used by the “5+5” and “5+4” numbers in the Brampton 016977 area code, and has been for many years. Length data is missing for seven of the other ranges.

The data in the **sabc.txt** file should be corrected as detailed below.

Code	D/DE	Status	Use	Notes	
1697	0	Designated	Brampton National Dialling	4 Digit Area Code	Mixed
1697	1	Designated	Brampton National Dialling	4 Digit Area Code	Mixed
1697	2	Designated	Brampton (6-fig.)	4 Digit Area Code	Mixed
1697	3	Designated	Wigton	5 Digit Area Code	Mixed
1697	4	Designated	Raughton Head	5 Digit Area Code	Mixed
1697	5	Designated	Brampton (6-fig.)	4 Digit Area Code	Mixed
1697	6	Designated	Brampton (6-fig.)	4 Digit Area Code	Mixed
1697	7	Designated	Brampton (4 and 5-fig.)	5 Digit Area Code	Mixed
1697	8	Designated	Brampton (6-fig.)	4 Digit Area Code	Mixed
1697	9	Designated	Brampton (6-fig.)	4 Digit Area Code	Mixed

The corrected table extract (shown directly above) clearly shows that Brampton has TWO area codes. Brampton is the only area in the UK with a mix of 4, 5 and 6-digit local numbers. Since all UK geographic telephone numbers have a total of either 9 or 10 digits, it is not possible to have all of those local number lengths within a single area code.

The only possible formats are “4+6”, “4+5”, “5+5” and “5+4”. The first two are 4-digit area codes (in this case, 01697) and the last two are 5-digit area codes (in this case, 016977). The “2+8”, “3+7”, “2+7” and “3+6” formats are not relevant here.

The (01697) area code has 6-digit local numbers beginning “2”, “5”, “6”, “8” and “9”, but **not** “3”, “4” or “7”.

The (016977) area code has 4-digit local numbers beginning “2” and “3”.

The (016977) area code has 5-digit local numbers beginning “4”, “5”, “6”, “7”, “8” and “9”.

The number “Brampton 40000” is (016977) 40000. “Brampton 40000” and “Brampton 90000” can call each other using 5-digit local dialling because both numbers are “5+5” format. Therefore both are located within the same 5-digit (016977) area code.

The number “Brampton 90000” is (016977) 90000. Likewise, “Brampton 900000” is (01697) 900000. To call each other, the respective (016977) or (01697) area code must also be dialled before the local number. This works in exactly the same way that (017687) 80000 and (01768) 800000 can call each other only by also dialling the area code before the local number. Finally, “Brampton 200000” is (01697) 200000, and “Brampton 2000” is (016977) 2000. These numbers can call each other only by dialling the respective area code in front of the number. That is, 01697 and 016977 are *two separate area codes*.

The confusion here is that both 016977 and 01697 are called “Brampton”, and Ofcom has repeatedly omitted 016977 from the official list of area codes. Having only the 01697 area code listed has directly led to other newer allocations being incorrectly marked as “4+6” format when in reality they are “5+5”. The Brampton “016977” and “01697” area codes should be both listed.

(continued...)

1.12 – The 016977 Brampton area code (cont'd.)

Local dialling within the various (016973), (016974), (016977) and (01697) area codes works as shown in the following table:

		CALLING TO								
		(016973) 0xxxx (016973) 1xxxx	(016973) 2xxxx (016973) 3xxxx (016973) 4xxxx (016973) 5xxxx (016973) 6xxxx (016973) 7xxxx (016973) 8xxxx (016973) 9xxxx	(016974) 0xxxx (016974) 1xxxx	(016974) 2xxxx (016974) 3xxxx (016974) 4xxxx (016974) 5xxxx (016974) 6xxxx (016974) 7xxxx (016974) 8xxxx (016974) 9xxxx	(016977) 0xxxx (016977) 1xxxx	(016977) 2xxx (016977) 3xxx	(016977) 4xxxx (016977) 5xxxx (016977) 6xxxx (016977) 7xxxx (016977) 8xxxx (016977) 9xxxx	(01697) 0xxxxx (01697) 1xxxxx	(01697) 2xxxxx (01697) 5xxxxx (01697) 6xxxxx (01697) 8xxxxx (01697) 9xxxxx
CALLING FROM		Wigton NDO 0+10	Wigton 5+5	Raughton Head NDO 0+10	Raughton Head 5+5	Brampton "A" NDO 0+10	Brampton "A" 5+4	Brampton "A" 5+5	Brampton "B" NDO 0+10	Brampton "B" 4+6
(016973) 0xxxx (016973) 1xxxx	Wigton 0+10	CODE + NUMBER	LOCAL NUMBER (5 digits)	CODE + NUMBER	CODE + NUMBER	CODE + NUMBER	CODE + NUMBER	CODE + NUMBER	CODE + NUMBER	CODE + NUMBER
(016973) 2xxxx (016973) 3xxxx (016973) 4xxxx (016973) 5xxxx (016973) 6xxxx (016973) 7xxxx (016973) 8xxxx (016973) 9xxxx	Wigton 5+5	CODE + NUMBER	LOCAL NUMBER (5 digits)	CODE + NUMBER	CODE + NUMBER	CODE + NUMBER	CODE + NUMBER	CODE + NUMBER	CODE + NUMBER	CODE + NUMBER
(016974) 0xxxx (016974) 1xxxx	Raughton Head 0+10	CODE + NUMBER	CODE + NUMBER	CODE + NUMBER	LOCAL NUMBER (5 digits)	CODE + NUMBER	CODE + NUMBER	CODE + NUMBER	CODE + NUMBER	CODE + NUMBER
(016974) 2xxxx (016974) 3xxxx (016974) 4xxxx (016974) 5xxxx (016974) 6xxxx (016974) 7xxxx (016974) 8xxxx (016974) 9xxxx	Raughton Head 5+5	CODE + NUMBER	CODE + NUMBER	CODE + NUMBER	LOCAL NUMBER (5 digits)	CODE + NUMBER	CODE + NUMBER	CODE + NUMBER	CODE + NUMBER	CODE + NUMBER
(016977) 0xxxx (016977) 1xxxx	Brampton "A" 0+10	CODE + NUMBER	CODE + NUMBER	CODE + NUMBER	CODE + NUMBER	CODE + NUMBER	LOCAL NUMBER (4 digits)	LOCAL NUMBER (5 digits)	CODE + NUMBER	CODE + NUMBER
(016977) 2xxx (016977) 3xxx	Brampton "A" 5+4	CODE + NUMBER	CODE + NUMBER	CODE + NUMBER	CODE + NUMBER	CODE + NUMBER	LOCAL NUMBER (4 digits)	LOCAL NUMBER (5 digits)	CODE + NUMBER	CODE + NUMBER
(016977) 4xxxx (016977) 5xxxx (016977) 6xxxx (016977) 7xxxx (016977) 8xxxx (016977) 9xxxx	Brampton "A" 5+5	CODE + NUMBER	CODE + NUMBER	CODE + NUMBER	CODE + NUMBER	CODE + NUMBER	LOCAL NUMBER (4 digits)	LOCAL NUMBER (5 digits)	CODE + NUMBER	CODE + NUMBER
(01697) 0xxxxx (01697) 1xxxxx	Brampton "B" 0+10	CODE + NUMBER	CODE + NUMBER	CODE + NUMBER	CODE + NUMBER	CODE + NUMBER	CODE + NUMBER	CODE + NUMBER	CODE + NUMBER	LOCAL NUMBER (6 digits)
(01697) 2xxxxx (01697) 5xxxxx (01697) 6xxxxx (01697) 8xxxxx (01697) 9xxxxx	Brampton "B" 4+6	CODE + NUMBER	CODE + NUMBER	CODE + NUMBER	CODE + NUMBER	CODE + NUMBER	CODE + NUMBER	CODE + NUMBER	CODE + NUMBER	LOCAL NUMBER (6 digits)

The table clearly shows there are now FOUR separate area codes within the 01697 and 01697X ranges: (016973) is Wigton, (016974) is Raughton Head, (016977) is Brampton with 4 and 5-digit local numbers, and (01697) is Brampton with 6-digit local numbers beginning 2, 5, 6, 8 and 9 only. To call any number in any of the other groups, the area code is always required.

Brampton's decade of missed opportunities

Ofcom's data is spread over a number of different files. The information for the Brampton area has been edited and amended multiple times over the last ten years, but there has been no occasion when the data in all of the files agreed with each other.

Numbering Plan – The proposal in 2003 contained incorrect data. After BT pointed out the error, it was corrected in the final version in 2003, but then the data reverted to showing incorrect information in all issues from 2004 until the present day.

sabc.txt – incorrectly showed (016977) as a “4-digit area code” from 2000 to 2002, was briefly corrected in 2002 to show as a “5-digit area code”, and was then changed back to incorrect “4-digit area code” in all versions from 2003 until the present day.

s1_code.txt (formerly **sabc_de.txt**) / **sabcde4.xls** (formerly **sabcde2.xls**) – Data for “1697 72” and “1697 73” was incorrect from 2000 to 2002 and briefly corrected in 2003. It was changed back to incorrect in 2004, changed to totally absurd in 2005, and finally fixed in 2010. The data for “1697 74” was incorrect from 2000 to 2010, and then finally corrected. The data for “1697 70”, “1697 71”, and for “1697 75” to “1697 79” has been incorrect for the last five years and is still incorrect now.

num_guide.pdf – The “number formats” table correctly shows “(016977) XXXX” as an example of a “5+4” Brampton number.

readme.txt – The table of valid formats omits “5+4” from every version of the document from pre-2000 to the present day.

1.13 – The “Gosforth (Mixed)” area code

sabc.txt

In the **sabc.txt** file, the entry for “019467 – Gosforth” is followed by the word “*Mixed*”.

Code	D/DE	Status	Use	Notes	Date	
1946	7	Designated	Gosforth (Mixed)	5 Digit Code Area		

There are precisely 18 “mixed 4 & 5-digit” area codes in all (listed in section 1.15) affecting exactly 60 entries in the **sabc.txt** file. Only the (019467) area code has this word “*Mixed*” after the name. For consistency, please add the word “*Mixed*” to all of the “mixed 4 & 5-digit” area code entries.

However, rather than directly appending the word “*Mixed*” to the end of the area code name itself, perhaps this designation could be placed in a new column called “Area Type”, or similar.

SABC	D	Status	Use	Area Code Length	Area Type	Date	Notes	
1946	7	Designated	Gosforth	5 Digit Area Code	Mixed			

The table above shows a suggested example, and this is further discussed in sections 1.18 and 1.20 of this response.

Many computer systems fail to properly cater for “mixed” area code areas. The current documentation for these allocations is sketchy and inconsistent.

The “*ELNS*” designation, as used by various number ranges in other area codes, could also be placed in the same column for the entries where it applies.

1.14 – Sundry issues with the “sabc.txt” file

sabc.txt

In the **sabc.txt** file, details for the ranges “1000” to “1129” were removed from the file some time before 2006. These have to be manually re-added so that computer systems can properly reject these numbers if entered. Without the data, the result for any number entered within that range, is “indeterminate”.

Between 2004 and 2006, the detailed information for all allocated codes from “3000” to “9999” was replaced by a simple “not designated” entry, one for each of the 7000 lines of data.

In 2007, the entire range “3000” to “3999” was removed from the file, and is still missing now. The next entry after “2999” is “4000”.

Also in 2007, the single entry for “9120” was removed from the file. The next entry after “9119” is “9121”.

Beyond “2999”, the data is useless. Please either completely delete the lines from “4000” onwards, or else both reinstate the lines “3000” to “3999” and “9120” **and** populate the entire range from “3000” to “9999” with the correct “National Call”, “Mobile”, “Freephone”, “Premium Rate” and other such designations in place of the current “Not Designated” entries.

1.15 – Clarification of valid local number ranges

numplan280710.pdf

In certain areas of the country, there are 15 area codes listed in the **numbering plan** that also come with details of which local number initial digits are matched with which named location. Those are the so-called “ELNS” areas.

The list includes the following 4 example areas:

01339	Aboyne (2,3,5,8) Ballater (4,6,7,9)	Y
01423	Boroughbridge (3,4,9) Harrogate (2,5,6,7,8)	Y
01430	Market Weighton (6,7,8,9) North Cave (2,3,4,5)	Y
01434	Bellingham (2,4,9) Haltwhistle (3,5) Hexham (6,7,8)	Y

The above usage is very clear and unambiguous. Only certain local number initial digits are matched with each place name.

For telephone numbers where the “SABC” digits are 1387, 1524, 1539, 1697, 1768 or 1946 the number could be within a 4-digit area code, or may be a part of a 5-digit area code. In these cases, the “D” digit is the deciding factor as to which rule applies.

This can be seen in the following **numbering plan** table extract:

numplan280710.pdf

01387	Dumfries	Y
013873	Langholm	Y
01524	Lancaster	Y
015242	Hornby	Y
01539	Kendal	Y
015394	Hawkshead	Y
015395	Grange-over-Sands	Y
015396	Sedbergh	Y
01697	Brampton <i>(for 6 fig. numbers only)</i>	Y
016973	Wigton	Y
016974	Raughton Head	Y
016977	Brampton <i>(for 4 and 5 fig. numbers)</i>	Y
01768	Penrith	Y
017683	Appleby	Y
017684	Pooley Bridge	Y
017687	Keswick	Y
01946	Whitehaven	Y
019467	Gosforth	Y

019462xxxxx will be (01946) 2xxxxx, Whitehaven; and
019467xxxxx will be (019467) xxxxxx, Gosforth.

Although these rules are straightforward, it seems that many people do not understand them. Many computer systems have been inadvertently programmed such that the 5-digit area codes are ignored; or worse still, such numbers cannot be input without error. However, there is a very simple solution to making the information for these areas more clear.

(continued...)

1.15 – Clarification of valid local number ranges (cont'd.)

For each of the six affected 4-digit area codes, simply list the valid local number initial digits for that area immediately after the area code name.

The following table extract shows the suggested **numbering plan** wording changes:

01387	Dumfries (2,4,5,6,7,8,9)	Y
013873	Langholm	Y
01524	Lancaster (3,4,5,6,7,8,9)	Y
015242	Hornby	Y
01539	Kendal (2,3,7,8,9)	Y
015394	Hawkshead	Y
015395	Grange-over-Sands	Y
015396	Sedbergh	Y
01697	Brampton <i>(6-fig only)</i> (2,5,6,8,9)	Y
016973	Wigton	Y
016974	Raughton Head	Y
016977	Brampton <i>(4 and 5-fig numbers)</i>	Y
01768	Penrith (2,5,6,8,9)	Y
017683	Appleby	Y
017684	Pooley Bridge	Y
017687	Keswick	Y
01946	Whitehaven (2,3,4,5,6,8,9)	Y
019467	Gosforth	Y

The table extract, above, now very clearly shows that Whitehaven does not have any local numbers with a “7” as the initial digit.

The reason for that is also obvious. Any number beginning with 019467 is in fact designated as being a Gosforth number and uses that separate (019467) area code.

Additionally, this change also clarifies the arrangements in the 01697 and 01697X ranges. It is clear that the (016973) area code is used by Wigton, and the (016974) area code is used by Raughton Head. That has never been in dispute.

What has not been clearly stated in the past, is that the (016977) area code is used both by 4-figure and 5-figure local numbers in Brampton, and that local numbers in the separate (01697) area code cannot begin with a 3, 4 or 7.

The simple changes to the table, as shown above, bring more clarity to the relationship of area codes and local numbers for the small number of places that have both 4-digit and 5-digit area codes sharing the same OSABC initial digits.

This change to the numbering plan merely documents and clarifies existing numbering policy.

*The smaller typeface in the table extract above shows number ranges that are currently “Protected”.
I am not sure if “Protected” ranges would be omitted from, or included in, such a list of valid initial digits.*

Finally, since BT has NO “4+6” allocations in the (01697) area code, technically, the (01697) area code has no name.

In area code lists from the 1980s, the 0697 area code is simply called “North West”, with individual exchanges in that area each using an area code with an extra digit: 06972, 06973, 06974, 06976, 06977 and 06978.

In the 1990s, numbers in the previous 06972, 06976 and 06978 area codes were migrated to what became the single (016977) Brampton area code. At the same time 06973 numbers became (016973), Wigton; and 06974 became (016974), Raughton Head. There is no name for the (01697) area code, as no numbers were directly allocated by, or to, BT within that area code.

1.16 – Summary of corrections for “numplan280710.pdf” file

numplan280710.pdf

The table below summarises many of the changes proposed for the **National Telephone Numbering Plan**:

Code	“numplan280710.pdf”	Corrected Data	Reason
01271	Barnstable	Barnstaple	Spelling
01284	Bury–St–Edmunds	Bury St Edmunds	Remove hyphens
01286	Caernarvon	Caernarfon	Spelling
01289	Berwick–on–Tweed	Berwick–upon–Tweed	Spelling
01333	Peat Inn	Leven (Fife)	Peat Inn is in the 01334 area code
01334	St Andrews	St Andrews	Peat Inn is in the 01334 area code
01387	Dumfries	Dumfries (2,4,5,6,7,8,9)	Clarify valid local number initial digits
01482	Hull	Kingston–upon–Hull	Correction to place name
01507	Alford (Lincs) (4,8,9) Louth (3,6,7) Spilsby (2,5)	Alford (Lincs) (4,8,9) Louth (3,6,7) Horncastle (2,5)	Spilsby is already listed as 01790
01524	Lancaster	Lancaster (3,4,5,6,7,8,9)	Clarify valid local number initial digits
01539	Kendal	Kendal (2,3,7,8,9)	Clarify valid local number initial digits
015395	Grange–Over–Sands	Grange–over–Sands	Lower case 'o' for 'over'
01559	Llandy ss ul	Llandysul	Spelling
01636	Newark	Newark–on–Trent	Correction to place name
01697	Brampton	Brampton (6-fig only) (2,5,6,8,9)	Clarify valid local number initial digits
016977	-----	Brampton (4 and 5-fig numbers)	Has been missing from plan since 2003
01768	Penrith	Penrith (2,5,6,8,9)	Clarify valid local number initial digits
01637	Newquay	Newquay	Newquay is 01637
01841	Newquay	Padstow	Newquay is 01637. Use Padstow for 01841
01877	Callandar	Callander	Spelling
01885	Pencombe	Bromyard	Bromyard numbers use 01885
01886	Bromyard	Knightwick	01886 is used to the East of Bromyard
01889	Rugely	Rugeley	Spelling
01934	Weston– Super –Mare	Weston– super –Mare	Lower case 's' for 'super'
01946	Whitehaven	Whitehaven (2,3,4,5,6,8,9)	Clarify valid local number initial digits

In the **numbering plan**, there are several listed place names containing a spelling mistake or naming error.

Some of the above errors have been evident for more than a decade.

1.17 – Summary of corrections for “sabc.txt” file

sabc.txt

The table below summarises many of the changes proposed for the **sabc.txt** file:

SABC D	“sabc.txt” 2010-10-30	Corrected Data	Reason
1134 1	Leeds	Leeds	
1134 1	Leeds Expansion	-----	Remove duplicate entry
1152 0	Nottingham	Nottingham	
1152 0	Nottingham	-----	Remove duplicate entry
1246	Chesterfield	Chesterfield	
1246	Chesterfield Y	-----	Remove duplicate entry
1271	Barnstable	Barnstaple	Spelling
1284	Bury–St–Edmunds	Bury St Edmunds	Remove hyphens
1286	Caernarvon	Caernarfon	Spelling
1289	Berwick–on–Tweed	Berwick–upon–Tweed	Spelling
1333	Peat Inn	Leven (Fife)	Peat Inn is in 01334
1334	St Andrews	St Andrews	Peat Inn is in 01334
1482	Hull	Kingston–upon–Hull	Correction to place name
1491	Henley on Thames	Henley–on–Thames	Add hyphens
1507 2	Spilsby	Horncastle	Spilsby is 01790 not 01507
1507 5	Spilsby	Horncastle	Spilsby is 01790 not 01507
15395	Grange over Sands	Grange–over–Sands	Add hyphens
1559	Llandyssul	Llandysul	Spelling
1636	Newark	Newark–on–Trent	Correction to place name
1697 7	Brampton	Brampton (4 & 5 fig.)	Fix entry to also say “5 Digit Area Code”
1637	Newquay	Newquay	Newquay is 01637
1841	Newquay	Padstow	Newquay is 01637. Use Padstow for 01841
1885	Pencombe	Bromyard	Bromyard numbers use 01885
1886	Bromyard	Knightwick	01886 is used to the East of Bromyard
1934	Weston– Super –Mare	Weston– super –Mare	Lower case 's' for 'super'
19467	Gosforth (Mixed)	Gosforth	Remove 'Mixed' from name
28 43	Newcastle	Newcastle (Co. Down)	Add county
28 90	Belfast City	Belfast	Remove 'City'
28 91	Bangor	Bangor (Co. Down)	Add county

1.18 – Data format in the “sabc.txt” file

sabc.txt

The data in the **sabc.txt** file is not at all easy to use. The file would be much easier to understand and process if:

- the “Code” column were to be renamed “SABC” – some “codes” use only SA or SAB, rather than SABC, while there are some other area codes that need the full SABC to be defined;
- the “D/DE” column were to be renamed “D” – the “E” digit is never needed to determine the “area code”;
- the current “Notes” column were to be renamed “Area code length”;
- the area code length were to be filled in for all 2, 3, and 5 digit area codes,
- the area code length were to be filled in for all of the “mixed” area codes;
- a new “Area type” column were to be added to the right of the “Area code length” column;
- the “ELNS” designations were to be moved to the new “Area Type” column;
- for all “mixed” area codes, the word “mixed” were to be placed in the new “Area Type” column;
- a brand new “Notes” column were to be added after the current rightmost column;
- for “unassigned” area codes with noted former assignments, the details of the “former assignments” were to be moved from the “Use” column to the new “Notes” column;

This is further discussed in section 1.20.

1.19 – Inconsistent “area code length” reporting in the “sabc.txt” file

sabc.txt

In the file **sabc.txt**, one column is used for signalling the area code length but there is no consistency to this data, and in many cases the data is missing.

For 5-digit area codes, the entries for 013873, 015242, 015394, 015395, 015396, 016973, 016974, 017683, 017684, 017687 and 019467 are already marked as “5 Digit Code Area”, though “5 Digit Area Code” is preferred for consistency with other entries. These entries are not marked as “mixed”, but should be, and this is discussed in more detail in section 1.18 and 1.20.

The 5-digit area code “016977” is allocated to Brampton. This is the entry found at “1697 7” in the **sabc.txt** file. The data for this entry should be changed from “4 Digit Code Area” to “5 Digit Area Code”. That is, all numbers beginning “016977” are “(016977) xxxxx” and are **not** “(01697) 7xxxxx”. This entry is not marked as “mixed”, but should be, and this is also discussed in more detail in section 1.18 and 1.20.

For 4-digit area codes within “mixed” areas, the relevant entries for 01387, 01524, 01539, 01768 and 01946 numbers are already marked as “4 Digit Code Area”, though “4 Digit Area Code” is preferred for consistency with other entries. These entries are not marked as “mixed”, but should be, and this is discussed in more detail in section 1.18 and 1.20.

For Brampton number ranges such as 01697 0, 01697 1, 01697 2, 01697 5, 01697 6, 01697 8, and 01697 9, there is no data presented for the area code length. Please add the “4 Digit Area Code” designation to each of those entries.

The entries for 016973, 016974 and 016977 should all, of course, say “5 Digit Area Code”. Those entries are not marked as “mixed”, but should be, and this is discussed in more detail in section 1.18 and 1.20.

For 3-digit area codes, the entries for 0113, 0114, 0115, 0116, 0117, 0118 and 0121 say “3 Digit Area Code”, which is correct.

The entries for the 0141 area code say “3 Digit Code Area”, which is inconsistent in wording. Change the entries for 0141 to say “3 Digit Area Code”.

For area codes such as 0119, 0131, 0151, 0161 and 0191, there is no detail as to the correct area code length. This information has been missing for these areas since at least 2003. Please add the same “3 Digit Area Code” detail to each of these entries.

Additionally, move the “ELNS” designation for the 0191 area code entries out of the “notes”/“area code length” column, and into a separate column. That new column will therefore contain either of the words “ELNS” or “Mixed”, as appropriate. This is discussed in more detail in section 1.18 and 1.20.

For area codes such as 020, 023, 024, 028 and 029, there is no note as to the correct area code length that applies to those areas. Please add the “2 Digit Area Code” detail to all relevant entries.

For the 15 “ELNS” areas at 01229, 01339, 01388, 01423, 01430, 01434, 01437, 01507, 01686, 01847, 01851, 01890, 01964 and 01975, move the “ELNS” designation into the proposed new “Area Type” column. There's also relevant discussion in section 1.20 of this response.

1.20 – Inconsistent data for “Mixed” and “ELNS” area codes

sabc.txt

In the **sabc.txt** file, there are a number of inconsistent and incomplete entries. In particular:

- the entry for “19467 – Gosforth” is marked as “*Mixed*” but this word is strangely appended to the area code name;
- none of the other “mixed” area codes have a note to say that they are “mixed” area codes;
- the “notes” column contains a mixture of “area code length” and “ELNS” data;
- the ten entries for “1910” to “1919” contain the “ELNS” designation in the “notes” column, leaving no room for the area code length to be specified;

A selection of entries from the **sabc.txt** file dated 2010-10-30 is shown in the table below:

Code	D/DE	Status	Use	Notes	Date	
<i>Comments below are not part of the original file</i>						
1215		Designated	Birmingham	3 Digit Area Code		<i>“Area Code” is the preferred wording</i>
1216		Designated	Birmingham	3 Digit Area Code		<i>do.</i>
1217		Designated	Birmingham	3 Digit Area Code		<i>do.</i>
1315		Designated	Edinburgh			<i>“Area code length” missing</i>
1316		Designated	Edinburgh			<i>do.</i>
1317		Designated	Edinburgh			<i>do.</i>
1387	2	Designated	Dumfries	4 Digit Code Area		<i>“Area Code” is preferred, not “Code Area”</i>
1387	3	Designated	Langholm	5 Digit Code Area		<i>and “Mixed” is missing</i>
1387	4	Designated	Dumfries	4 Digit Code Area		<i>do.</i>
1434	4	Designated	Bellingham	ELNS		<i>“ELNS” should be in a different column</i>
1434	5	Designated	Haltwhistle	ELNS		<i>do.</i>
1434	6	Designated	Hexham	ELNS		<i>do.</i>
1697	3	Designated	Wigton	5 Digit Code Area		<i>“Area Code” is preferred, not “Code Area”</i>
1697	4	Designated	Raughton Head	5 Digit Code Area		<i>and “Mixed” is missing</i>
1697	5	Designated	Brampton			<i>“Area code length” and “Mixed” missing</i>
1913		Designated	Durham	ELNS		<i>“Length” missing, “ELNS” is in the way</i>
1914		Designated	Tyneside	ELNS		<i>do.</i>
1915		Designated	Sunderland	ELNS		<i>do.</i>
1946	5	Designated	Whitehaven	4 Digit Code Area		<i>“Area Code” is preferred, not “Code Area”</i>
1946	6	Designated	Whitehaven	4 Digit Code Area		<i>do.</i>
1946	7	Designated	Gosforth (Mixed)	5 Digit Code Area		<i>Move “Mixed” into a new column</i>
2075		Designated	London			<i>“Area code length” missing</i>
2076		Designated	London			<i>do.</i>
2077		Designated	London			<i>do.</i>

There are a number of “mixed 4 & 5-digit area codes” in the **numbering plan** (these are listed in section 1.15) but most are not marked as such in the **sabc.txt** file.

Only the (019467) area has this word “*Mixed*” after the name. For consistency, please add the word “*Mixed*” to all of the other “mixed 4 & 5-digit area code” entries.

However, rather than directly appending the word “*Mixed*” to the end of the area code name, perhaps this designation could be placed in a new column called “Area Type”, or similar. The “*ELNS*” designation, as used by various number ranges in other area codes, could also be placed in the same column.

“Mixed” area codes confuse a lot of software developers, as their documentation is incomplete and unclear. There's a simple way to fix that. Some examples are shown on the following page.

(continued...)

1.20 – Inconsistent data for “Mixed” and “ELNS” area codes (cont'd.)

sabc.txt

The table below shows the same data as presented on the previous page, but now with a more consistent format. It uses the ideas detailed above and in section 1.18.

SABC	D	Status	Use	Area Code Length	Area Type	Date	Notes	
1215		Designated	Birmingham	3 Digit Area Code				
1216		Designated	Birmingham	3 Digit Area Code				
1217		Designated	Birmingham	3 Digit Area Code				
1315		Designated	Edinburgh	3 Digit Area Code				
1316		Designated	Edinburgh	3 Digit Area Code				
1317		Designated	Edinburgh	3 Digit Area Code				
1387	2	Designated	Dumfries	4 Digit Area Code	Mixed			
1387	3	Designated	Langholm	5 Digit Area Code	Mixed			
1387	4	Designated	Dumfries	4 Digit Area Code	Mixed			
1434	4	Designated	Bellingham		ELNS			
1434	5	Designated	Haltwhistle		ELNS			
1434	6	Designated	Hexham		ELNS			
1697	3	Designated	Wigton	5 Digit Area Code	Mixed			
1697	4	Designated	Raughton Head	5 Digit Area Code	Mixed			
1697	5	Designated	Brampton	4 Digit Area Code	Mixed			
1913		Designated	Durham	3 Digit Area Code	ELNS			
1914		Designated	Tyneside	3 Digit Area Code	ELNS			
1915		Designated	Sunderland	3 Digit Area Code	ELNS			
1946	5	Designated	Whitehaven	4 Digit Area Code	Mixed			
1946	6	Designated	Whitehaven	4 Digit Area Code	Mixed			
1946	7	Designated	Gosforth	5 Digit Area Code	Mixed			
2075		Designated	London	2 Digit Area Code				
2076		Designated	London	2 Digit Area Code				
2077		Designated	London	2 Digit Area Code				

The table above shows only a small selection of the affected area codes. A more complete list of errors appears in section 1.19.

Additionally, should the “Director” areas (i.e. 0121, 0131, 0141, 0151, 0161, and 020) be so marked using the proposed new “Area type” column too?

1.21 – Are Portsmouth and Southampton now “ELNS” areas?

sabc.txt

Should Portsmouth and Southampton, and for that matter the whole of Northern Ireland too, be designated as “ELNS” areas, in the **sabc.txt** file, in the same way as the various other area codes that cover multiple charge groups are?

Do they use the same “system”?

1.22 – Summary of corrections for the “sn_code.txt” files

s1_code.txt / s3_code.txt / s5_code.txt / s7_code.txt / s8_code.txt / s9_code.txt

Some of the number length/number format data is inconsistently presented. In other cases the data is either incorrect or missing. The table below details most of the anomalies.

s1_code.txt			
First Entry	Last Entry	Current Data	Correction
1481 99 0	1481 99 8	4+6	4+6
1481 99 9			N/A
1534 99 0	1534 99 8	4+6	4+6
1534 99 9			N/A
1539 49 9		5+5	N/A
1624 99 0	1624 99 8	4+6	4+6
1624 99 9			N/A
1697 38 0	1697 38 9	4+6	5+5
1697 39 9		5+5	N/A
1697 49 0	1697 49 8	(0)+10	5+5
1697 49 9			N/A
1697 70 0	1697 70 9	4+6	(0)+10
1697 71		4+6	(0)+10
1697 75	1697 78	4+6	5+5
1697 79 0	1697 79 8	4+6	5+5
1697 79 9			N/A
1768 88 0		Mixed 4+5 & 4+6	4+6
1768 88 1			4+6
1768 88 2			4+5
1768 88 3			4+5
1768 88 4			4+5
1768 88 5			4+6
1768 88 6			4+5
1768 88 7			4+5
1768 88 8			unknown
1768 88 9			4+6
1908 99 0	1908 99 8	N/A	4+6
1908 99 9		N/A	N/A
1946 70	1946 71	N/A	(0)+10
1946 79 0	1946 79 8	N/A	5+5
1946 79 9		N/A	N/A
1987 99 0	1987 99 8	4+6	4+6
1987 99 9			N/A

s3_code.txt			
First Entry	Last Entry	Current Data	Correction
3000	3999	blank	(0)+10

s5_code.txt			
First Entry	Last Entry	Current Data	Correction
5511	5699	10 Digit Numbers	(0)+10

s7_code.txt			
First Entry	Last Entry	Current Data	Correction
7400	7599	blank	(0)+10
7600	7699	10 Digit Numbers	(0)+10
7700	7828 9	10 Digit Numbers	(0)+10
7829 0	7829 6	missing	(0)+10
7829 7	7999	10 Digit Numbers	(0)+10

s8_code.txt			
First Entry	Last Entry	Current Data	Correction
8088 11		blank	(0)+10
8088 12		blank	(0)+10
8430	8435	blank	(0)+10
8446		blank	(0)+10
8710 70		blank	(0)+10
8710 75		blank	(0)+10
8720	8724	blank	(0)+10
Various		10 Digit Numbers	(0)+10
Various		10 digit numbers	(0)+10
Various		9 Digit Numbers	(0)+9
Various		9 digit numbers	(0)+9
8454 64		7 Digit Number	(0)+7
8001 11 1		7 digit numbers	(0)+7

s9_code.txt			
First Entry	Last Entry	Current Data	Correction
9090 25		10 Digit Number	(0)+10
9092 92		10 Digit Numbering	(0)+10
9097 58		10 Digit Numbering	(0)+10
9097 94		10 Digit Numbering	(0)+10
9098 55		10 Digit Numbering	(0)+10
9098 93		10 Digit Numbering	(0)+10
9099 78		10 Digit Number	(0)+10
Various		10 digit numbers	(0)+10
9120		missing	(0)+10
9820 00	9839 99	blank	(0)+10

For some entries, data currently specified as far as the “E” digit now needs to be specified as far as the “F” digit in order to fix it.

1.23 – Using Ofcom Data

sabc.txt / sn_code.txt / numplan280710.pdf

Although at first glance, Ofcom's data seems to be very detailed, and the weekly updates seemingly give a sense of being right up-to-date, the data cannot be directly used without a significant amount of further work to correct numerous errors, omissions, and typos. Failure to correct the data leads to erroneous operation of computer systems.

Thousands of computer systems and web sites have already been programmed with erroneous and incomplete data. Indeed, the computer systems and web sites of several major UK companies will not accept any 9-digit telephone numbers, or else incorrectly format all 5-digit area code numbers, or give incorrect results within various other specific number ranges.

Many other computer systems also cannot cope with two or three-digit area codes, even though those have been in use for more than ten and fifteen years respectively.

In the more than ten years that the numbering data has been available in one form or another, there has been not a single occasion when the data in all of the various files was in full agreement with each other.

It is hoped that Ofcom can use all of the items listed in this response to build a much more robust data set in the future.

Section 2: URLs for Oftel and Ofcom Documents

2.1 – URLs for archived Oftel & Ofcom Documents and for current Ofcom documents

Oftel's archived documents can be found at:

- www.ofcom.org.uk/static/archive/oftel/publications/1995_98/#Numbering
- www.ofcom.org.uk/static/archive/oftel/publications/1999/#Numbering
- www.ofcom.org.uk/static/archive/oftel/publications/numbering/

Ofcom's older documents were found via: web.archive.org/ including the documents previously located at:

- www.ofcom.org.uk/telecoms/ioi/numbers/
- www.ofcom.org.uk/telecoms/ioi/numbers/numbers_administered/

Ofcom's current documents can be found at:

- stakeholders.ofcom.org.uk/telecoms/numbering/
- www.ofcom.org.uk/static/numbering/

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