

# Ofcom

## Quality of Service: Ethernet Leased Lines 2014

by



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# 1. Background

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Ofcom has a statutory requirement to conduct regular reviews of the market for leased lines (the Business Connectivity Market).

Leased lines (also called private circuits) are used by large businesses and public sector organisations. They are used to support a wide variety of ICT applications, such as access to the internet, private voice and data networks, backup and disaster recovery, remote monitoring and telemetry applications.<sup>1</sup>

Within the UK, Ofcom has found BT to have Significant Market Power in the provision of wholesale leased lines and requires BT to provide wholesale leased lines to other operators on a regulated basis.<sup>2</sup> In Great Britain, these services are provided by Openreach which is the infrastructure division of BT Group. Openreach was formed in 2006 as a result of BT's Undertakings given to Ofcom in September 2005 in lieu of a reference to the Competition Commission under the Enterprise Act.

Openreach's wholesale leased line services are a key input to the retail leased lines services provided by many other communications providers.

Ofcom commissioned research to seek to understand users' perceptions and expectations of various aspects of Ethernet leased line service quality, as well as their willingness to pay for a better service.

In 2013 Ofcom commissioned research amongst residential consumers and small and medium enterprises regarding fixed telephone line installation and fault repair which covered similar quality of service issues. This report is sometimes referred to in this document. The full report is available on the Ofcom website:

<http://stakeholders.ofcom.org.uk/binaries/research/telecoms-research/telecoms-market-data/fault-repair-research.pdf>.

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<sup>1</sup> Leased lines are also used by communications providers as components of consumer communications services such as internet access and mobile telephony. However, such uses are outside the scope of this research.

<sup>2</sup> Business Connectivity Market Review, final statement published 28 March 2013, <http://stakeholders.ofcom.org.uk/consultations/business-connectivity-mr/?a=0>

## 2. Research objectives

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The purpose of the research documented in this report is to **understand the value** businesses and public sector organisations place on those elements of service performance which are directly attributable to Openreach's service quality.

This report examines the **current standard of service** provided by Openreach with respect to Ethernet leased lines.

Specifically, the report reviews the findings of the research, considering whether the service provided by Openreach in **connecting new Ethernet leased lines** and **repairing faulty Ethernet leased lines** is adequate in terms of **speed** and **reliability**.

The research does not examine complaints about poor service, rather the central question is 'what does 'good' look like to end users?'

Specific objectives within this context are to examine end-user views on the following:

- Timing
  - Establish what is considered a 'reasonable length of time' for providing a new connection and for fault repair;
  - Tolerances to timing delays, i.e. what would be an unreasonable period and how would end-users be likely to react to this (e.g. look for an alternative supplier)?
  - Establish the relative importance end-users attach to certainty of date (or even time) of an installation or repair, compared to the overall time taken and/or quality of service.
- Price
  - Determine how much an end-user would be willing to pay for a given improvement in the timing of installation/repair or for a choice in timing of repair/installation.
- Switching behaviour
  - Determine how shortfalls in performance (timing or quality) influence end user perceptions of an operator and how likely are they to switch provider as a result of those shortfalls.

### 3. Research method

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Market research was conducted via CATI (Computer Assisted Telephone Interviewing) by BDRC Continental from 1<sup>st</sup> October to 7<sup>th</sup> November 2014 among 450 organisations that have an Ethernet leased line connection.

#### **Respondent and screening criteria**

Interviewers had strict screening criteria to adhere to (defined by Ofcom) in order to ensure that the correct type of respondent was contacted. The person whose responsibility it was to make decisions concerning IT, telecoms and other communications services and suppliers was interviewed. It was necessary to talk to a senior decision maker as the detail required as well as the overview of all aspects of service could only be provided by someone at this level.

A full copy of the questionnaire including screening criteria can be found in Appendix B of this document.

#### **Sample structure**

The exact size of the universe of businesses or organisations using an Ethernet leased line was not known, however estimates were provided by Ofcom. From these estimates a sampling plan was devised which, compared to the national profile of businesses, skewed towards larger businesses (i.e. with more employees). A spread by region and activity of businesses was achieved. A sample of smaller businesses was also included.

#### **Weighting**

The sample achieved ensured a sufficient base for examination of findings by different company size which was an important objective for the research. In order to provide a total that was representative of businesses at an overall level, weighting was applied to the data.

The weighting was determined using the incidence of Ethernet leased line usage calculated from the proportion of respondents that screened in/out of the survey weighted to the profile of all UK organisations. The sample sizes achieved are shown in the following table along with their weighted and un-weighted proportions.

**Figure 3.1 Telecoms services used**

<b>Organisation size (no. of employees)</b>	<b>Number of interviews</b>	<b>Unweighted proportion</b>	<b>Weighted proportion</b>
<b>1 to 49</b>	50	11%	30%
<b>50 to 250</b>	107	24%	68%
<b>251 to 499</b>	118	26%	1%
<b>500 to 999</b>	87	19%	<0.5%
<b>1000+</b>	88	20%	<0.5%

The weighting efficiency achieved was 24.9%<sup>3</sup>. The notable effect on the efficiency was primarily due to the substantial over-sampling (and subsequent down-weighting ) of the large organisations. This ensured that there were sufficient samples for each group of interest to allow individual analysis, but also that the Total sample was representative of all organisations overall.

### **Statistical analysis**

Most of the results presented in this report are percentages based on those who were asked the question. Unless otherwise specified in the text underneath the relevant Figure or table, this is usually the total number of respondents, or the total in each size band. However, there are other types of finding in this report.

Two types of techniques were used in the questionnaire which allowed respondents to compare different aspects of service and ‘trade-off’ between them. This then provides a hierarchy of importance which can be more discriminating than standard question techniques alone.

Firstly, a method of trade-off analysis called ‘MaxDiff’ (maximum difference scaling) has been used in order to provide an overall hierarchy of importance of service elements for Ethernet leased lines. More detail on this can be found in section 5.3.

The second trade-off technique - ‘conjoint analysis’ - was employed to examine the weight of different service elements within an installation scenario. More information about this can be found in section 5.4.

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<sup>3</sup> Weighting efficiency is a measure of how much weighting has reduced the effective sample size (i.e. the sample size on which any statistically significant differences are observed). The weighting efficiency of 24.9% means that the Total sample size of 450 has an effective sample size of 113.



Any statistically significant differences in findings between the sample groups are highlighted. These are differences to the 95% confidence level i.e. where we are 95% certain that the difference in the findings is real and not as a result of sampling error. These calculations use the effective base and not the total base for the subgroup.

## 4. Executive summary

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### 4.1 Usage and experience of Ethernet leased lines

***Most Ethernet leased lines users surveyed were able to name the provider of the underlying connection of their Ethernet leased line. A majority had interacted with the provider for reasons of installation, modifications to lines, switching of provider or repairing a fault.***

- All respondents in the survey had some type of Ethernet leased line, the most popular being Ethernet digital Leased lines (96%). However, there were instances where they also used a variety of different types of connectivity services. Larger organisations were more likely to use certain types of connection, for example, Asynchronous Transfer Mode (ATM).
- Almost all respondents (95%) indicated that their 'business would struggle to function without it' or 'their business could manage but only for a limited period without it'.
- The majority of respondents (61%) were aware of Openreach, although one in four (25%) were unaware of the ultimate provider of the underlying connection.
- In total, over four in five respondents (83%) had contact with Ethernet leased line providers, having experienced: a new Ethernet leased line installation (59%), a modification of an Ethernet leased line (38%), a switch between Ethernet leased line providers (34%), having reported a fault on their Ethernet leased line (65%) or had a fault fixed on their Ethernet leased line (57%).
- Switching between providers of Ethernet leased lines and new installations of Ethernet leased lines were reported to be completed as scheduled by 60% of respondents who had experienced those activities. Those who had experienced a delay were asked the extent of the impact and reports of delays ranged from 1 to 10 days (for 33% of respondents) up to more than 60 days (20%).
- Faults on Ethernet leased lines were more often fixed remotely (59%) than via a visit (44%), although a visit was required in 44% of repairs. Almost nine in ten respondents reported that faults were fixed as scheduled (87%), whereas only six in ten respondents reported installations/switching were completed as scheduled (60%).

## 4.2 Importance of elements of provision of Ethernet Leased lines

***'Reliability' of performance was key for Ethernet leased line users in choice of provider.***

- 'Reliability' (in terms of performance) was the most important feature when selecting a communications provider for Ethernet leased lines. It emerged as more than twice as important compared to 'responsiveness to faults', the next highest rated attribute, with a 'score' of 44 vs. 16. 'Speed (bandwidth)' came in third place (14). Other attributes fell some way behind in terms of importance.
- There were relatively little differences in ranking by size of organisation. That said, the ranking score for 'reliability' was higher for the SME (1-250 employees) sample at 44, vs. 38 for the larger organisations (251+).

## 4.3 Importance of elements specific to Ethernet leased line installation

***Criteria for a 'reasonable' installation for an Ethernet leased line is spread across several different elements of the process.***

- In order to understand the importance of differing aspects of the installation process, a trade-off technique called 'conjoint analysis' was conducted. For this, respondents were presented with a number of installation scenarios and asked how reasonable they found each one. The scenarios had differing levels of service for certain attributes that make up the installation process.
- Four attributes came out with approximately equal importance, namely:
  - The time until the activation date
  - Whether you are provided with updates on the installation
  - Whether the service is activated on schedule
  - The time for key milestones to be met if their agreed date is missed
- Attitude statements confirmed the findings of the conjoint analysis (that speed of installation is not the only component of value), as there were a majority of respondents indicating that they agreed 'I would rather wait longer for my installation appointment if it meant greater confidence that the installation completion date would not be missed' (76% agreed).

#### 4.4 Wait and cost revisions considered to be 'reasonable' for a new Ethernet leased line service activation

***A 'reasonable' wait for an Ethernet leased line activation can vary considerably between organisations. However there is consensus that cost revisions following initial quotations must be minimal in order to be 'reasonable'.***

- Following the conjoint 'trade-off', respondents were asked how long they thought it reasonable to wait for a new Ethernet leased line to be activated ('reasonable' was defined as not ideal, but what would be generally satisfactory to them). There was a wide range in responses, with the average 'reasonable' wait around 25-30 working days. However, 18% suggested they found a wait of 46 working days or more to be 'reasonable'.
- Expectation of *actual* waiting time for an Ethernet leased line activation (defined as what they feel they would be likely to be offered) was in fact sometimes *lower* than what may have been regarded as 'reasonable'. This can be deduced because the proportion indicating they would 'expect' an installation in 1 to 2 days is 11% compared to 6% who thought this timeframe was 'reasonable'. Additionally, the median declines from 26 days to 17 days. However, the overall pattern of responses was similar.
- Over eight in ten respondents (84%) agreed 'they would rather wait longer for a firm installation quotation than to risk finding out at a later stage that costs would be higher'. When presented with different levels of potential cost revision after being quoted an initial connection charge subject to survey when they placed their order, there was tolerance for upward adjustments only at low price intervals, for example a 5% additional connection charge was 'reasonable' for 71% of respondents, however, additional charges of 10%, 20% or 30% were more likely to be found 'unreasonable' than 'reasonable'.

#### 4.5 Wait time for repair to Ethernet leased line considered to be 'reasonable'

***A 'reasonable' repair wait for an Ethernet leased line that has stopped working is a matter of hours.***

- For repair, 63% of respondents specified a wait of 1, 2, 3 or 4 hours for the service to be active again as reasonable (defined as but not necessarily ideal, but generally satisfactory to them).
  - 25% thought a wait of 1 or 2 hours would be 'reasonable' (although 35% would 'expect' this length of wait, i.e. feel they would be likely to be offered this)
  - Four per cent thought a wait of more than 24 hours was 'reasonable'.

- The findings were similar when respondents were prompted with different bands of time for a fault on their Ethernet leased line to be fixed. Waits of 2 and 5 hours were considered to be 'reasonable' by the majority of respondents (95%, 69% respectively), while waits of 10 hours and 24 hours were perceived by a greater proportion to be 'unreasonable' (64%, 78% respectively) than 'reasonable' (36%, 22% respectively).

#### 4.6 Attitudes regarding the reliability of the respondent's Ethernet leased line

***Most respondents indicated they were confident in their Ethernet leased line and did not regularly experience faults.***

- When asked how strongly they agreed or disagreed with statements regarding the reliability of their Ethernet leased line, **almost all** respondents agreed they 'had confidence in the reliability of their Ethernet leased line service' (96%).
- A minority agreed they 'regularly have faults on their Ethernet leased line' (9%). Around one in twenty (6%) disagreed that 'they have confidence that if there is a fault on their Ethernet leased line it will be resolved quickly'.

#### 4.7 Switching the provider of an Ethernet leased line

***A sizeable minority of the sample had switched provider of an Ethernet leased line. Switching of provider could be precipitated by less than reasonable activation scenarios, but were less likely to occur as a result of fault repairs taking longer than considered reasonable.***

- Two in five (38%) of the Ethernet leased line users sampled said they had ever switched their supplier of their Ethernet leased line. Switching the company which provided the Ethernet leased line 'in the last 12 months' amongst the largest organisations with 500 or more employees was more common (22% vs. 7% 1 to 250)
- Two in five (38%) respondents claimed they would consider switching to an alternative provider of an Ethernet leased line when they were presented with a service activation scenario they did not consider to be 'reasonable'. (NB: This included various different aspects of the scenario presented to respondents, including timescale.)
- 10% of respondents said they would consider switching to an alternative provider if a fault repair to their Ethernet leased line was taking longer than they felt was reasonable. But (both for activation scenarios that were 'unreasonable' and repairs which were taking longer than 'reasonable') the more common course of action indicated by respondents, would be to complain, chase up or escalate the issue (71% 'unreasonable' installation, 74% fault repair longer than 'reasonable').

## 4.8 Paying for enhanced services

***A minority of Ethernet leased line users surveyed indicated they would be 'very likely' to consider the service options outlined to them which offered the potential to pay for a service enhancement.***

- All respondents were asked how likely they would be to consider using four different types of 'enhanced' services they would need to pay extra for. A minority (ranging from 11% - 29%) indicated that they were 'very' likely to consider using the different service types outlined to them. This level of consideration is the best indicator of likelihood (as opposed to 'quite likely'), but even this highest rating does not guarantee that the respondent would take up the offer in a real market situation. Consideration was not asked in relation to a specified price; therefore caution should be applied in extrapolating this into likely take-up of service.
- A 'Repair appointment sooner than the one originally offered' generated the greatest interest with 29% 'very likely' to consider paying for it. The next most popular option was 'confirmation of an installation appointment within 5 working days' with 11% 'very likely' to consider paying for it.
- Responses to other questions further suggest a reluctance to seriously consider paying for these options. For example, when asked what they felt would be reasonable to pay for an enhanced 'Premium' service, one in five Ethernet leased line users (22%) did not name any figure. A further two in five (42%) said they were either unwilling to pay at all.

## 5. Main findings

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### 5.1 Telecoms usage

#### **SUMMARY:**

***Most Ethernet leased lines users surveyed were able to name the provider of the underlying connection of their Ethernet leased line.***

- All respondents in the survey had some type of Ethernet leased line, the most popular being Ethernet digital Leased lines (96%). However, there were instances where they also used a variety of different types of connectivity services. Larger organisations were more likely to use certain types of connection, for example, Asynchronous Transfer Mode (ATM).
- Almost all respondents (95%) indicated that their 'business would struggle to function without it' or 'their business could manage but only for a limited period without it'.
- The majority of respondents (61%) were aware of Openreach, although one in four (25%) were unaware of the ultimate provider of the underlying connection.

#### 5.1.1 Introduction

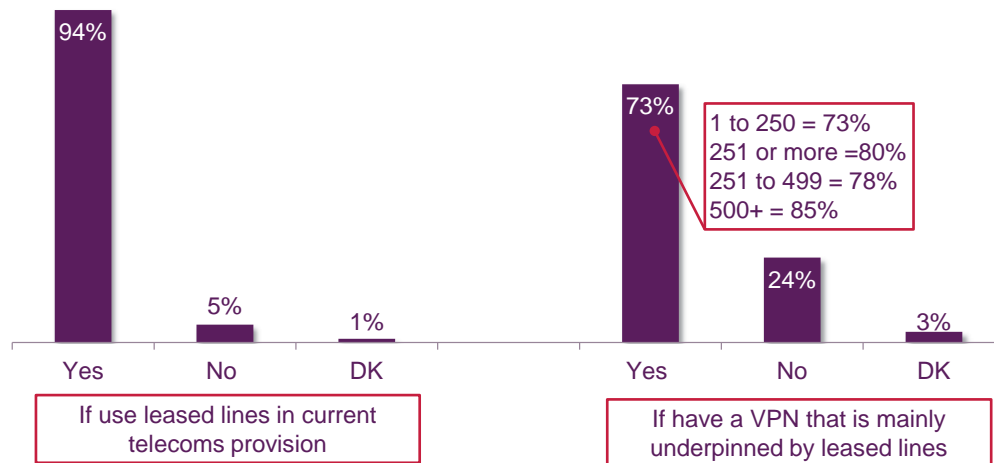
Respondents were asked a series of questions to understand the types of connections used in order to determine their eligibility (as Ethernet leased line users) for this research. The following section shows results from **all respondents included in the research** (i.e. all those that have an Ethernet leased line).

NB: In addition to the questions detailed below, as a final check for qualification, respondents were asked to base all their responses in the survey on the services they receive through their fibre based Ethernet leased line based **in the UK** and not any other telecoms provision that they may have.

### 5.1.2 Overall usage of leased lines

Figure 5.1, below shows the proportion of respondents that indicated they used a leased line as part of their current telecoms provision (94%) or who had a Virtual Private Network (VPN) mainly underpinned by leased lines (73%).

**Figure 5.1 Telecoms services used**



Base: Total (n=450), 1-250 employees (157), 251+ (293), 251-499 (118\*), 500+ (175)

Source: QS1ai. Thinking about your company's current telecoms provision for voice and data connectivity, do you use any leased lines? / QS1aii. And do you have a Virtual Private Network (VPN) that is mainly underpinned by leased lines?

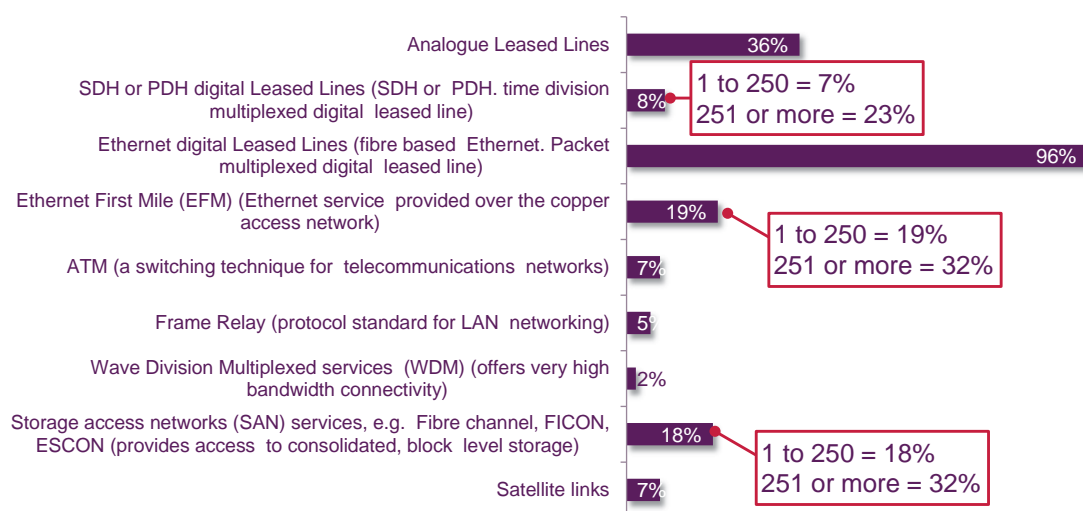


### 5.1.3 Type of leased lines and other services used

Respondents who indicated they had or may have a leased line were asked 'What types of leased lines or other business connectivity services do you have?' Results are shown in Figure 5.2, below. Respondents were prompted and probed fully about their responses to the question. All those that coded 'Ethernet digital leased lines' qualified for inclusion in this research.

As illustrated in Figure 5.2, there were some differences in the types of services used by organisation size. Ethernet leased line users with 251 or more employees were significantly more likely to have SDH or PDH digital leased lines than organisations with 1-250 employees (23% vs. 7%), Ethernet First Mile connections (32% vs. 19%) and 'storage access networks' (32% vs. 18%).

**Figure 5.2 Types of leased lines or other business connectivity services**

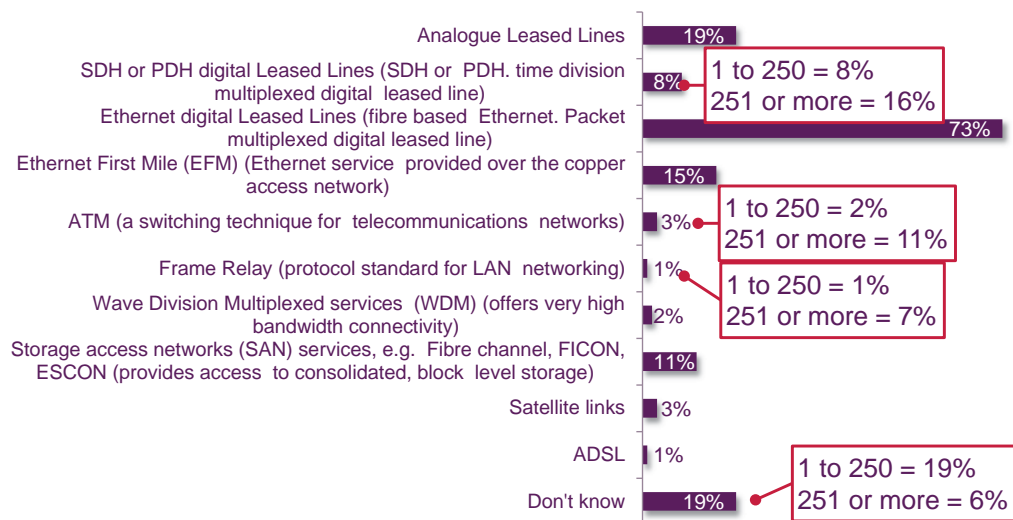


Base: All who confirmed or who were unsure if they used leased lines (n=433), 1-250 employees (149), 251+ (284)

Source: QS1b. What types of leased lines or other business connectivity services do you have?

All respondents who indicated they had a VPN underpinned by leased lines were asked what types of leased lines was used. The proportion indicating their VPN was underpinned by Ethernet digital leased lines was 73%. Results are shown in Figure 5.3, below.

**Figure 5.3 Types of leased lines or other business connectivity services underpinning leased lines**



Base: All who confirmed or were unsure if they had a VPN that is mainly underpinned by leased lines (n=354), 1-250 employees (121\*), 251+ (233)

Source: QS1c. What types of leased lines or other business connectivity services do you have underpinning your VPN?

All respondents in the research either had an Ethernet digital leased line, or a VPN underpinned by one.

There were some differences in the types of leased lines and connectivity underpinning a VPN. Those respondents from larger organisations (251 employees or more) were more likely to have:

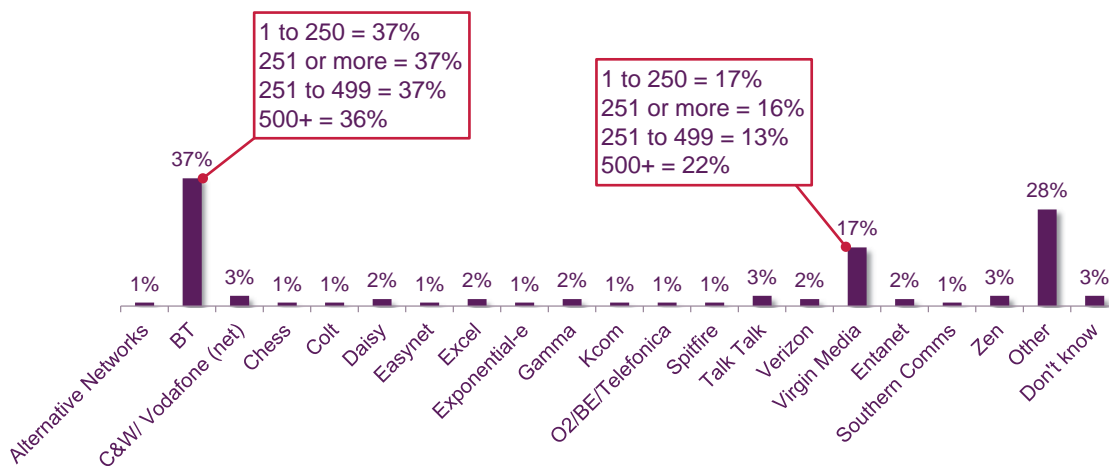
- SDH or PDH digital Leased Lines (16% vs. 8% 1-250)
- ATM (11% vs. 2%)
- Frame Relay (7% vs. 1%)

#### 5.1.4 Communications Providers

Respondents were asked which company or companies they used for their Ethernet leased line services. Interviewers did not prompt with company names but did probe for as much information as possible. Figure 5.4, below shows the overall distribution of companies that respondents indicated they used.

The majority of respondents used either BT or Virgin Media for their Ethernet leased line services. BT was used by approaching two in five Ethernet leased line users (37%) and this was similar by organisation size. Virgin Media was used by 17% of respondents (approximately one in five), with the remainder distributed between <0.5% to 3%. All providers shown in Figure 5.4 were used by >0.5% of respondents. Those with smaller levels of usage are included in the 'Other' code and constitute a variety of different businesses.

**Figure 5.4 Company/companies used for Ethernet leased line services**



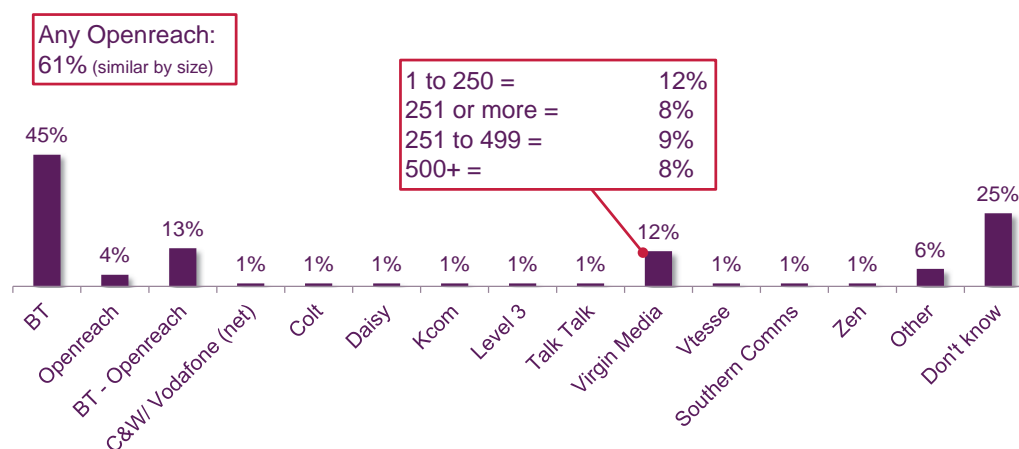
Base: Total (n=450), 1-250 (157), 251+ (293), 251-499 (118\*), 500+ (175)

Source: P1. Which company/ companies does your business use for its Ethernet leased line services?

### 5.1.5 Awareness of underlying connection provider

Figure 5.5, below shows the awareness of underlying connection provider. Around three in five (61%) respondents were aware that BT, Openreach or BT Openreach was the ultimate provider of the underlying connection for their organisation's Ethernet leased line. Of the remainder, a quarter (25%) did not know and just over one in ten (12%) named Virgin Media, with other providers named by <0.5% to 1% of respondents.

**Figure 5.5 Awareness of underlying connection provider**



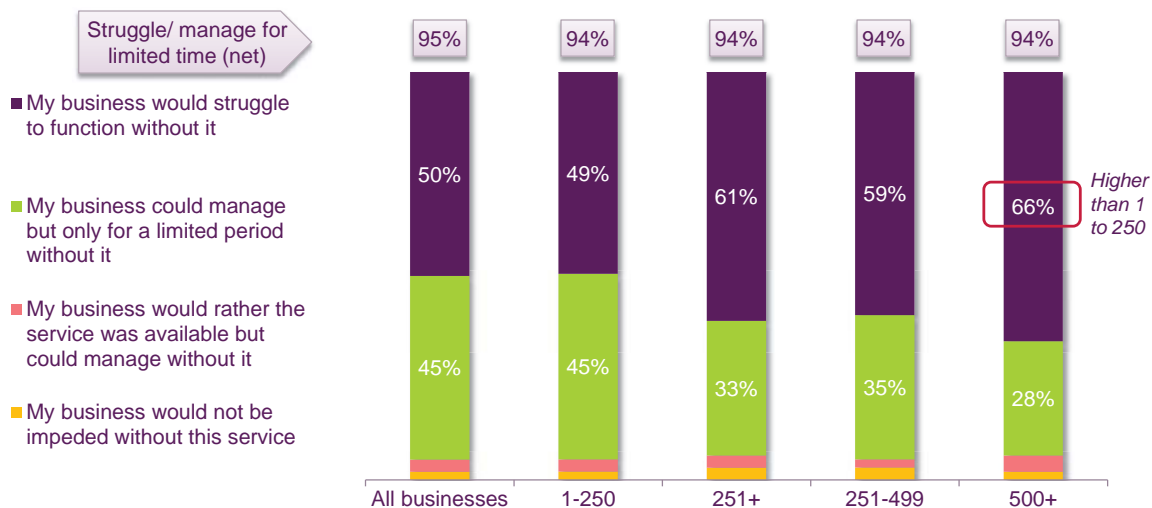
Base: Total (n=450), 1-250 (157), 251+ (293), 251-499 (118\*), 500+ (175)

Source: P1a. And do you know who is the ultimate provider of the underlying connection for your business's Ethernet leased line services?

### 5.1.6 Reliance on Ethernet leased line

Respondents were asked how much their business relies on their Ethernet leased line and the services it provides. Almost all (95%) indicated that their 'business would struggle to function without it' or 'their business could manage but only for a limited period without it'. There was little difference by organisation size at this overall level of reliance although the largest organisations (500+) were more likely than those in the 1-250 band to indicate they would 'struggle to function without it' (66% vs. 49%).

**Figure 5.6 Reliance on Ethernet leased line**



Base: Total (n=450), 1-250 employees (157), 251+ (293), 251-499 (118\*), 500+ (175)

Source: Q8 Thinking about your Ethernet leased line and the services it provides, how much does your business rely on it. Would you say that...?

## 5.2 Experience of Ethernet leased line provider service elements

### **SUMMARY:**

***A majority had interacted with the provider for reasons of installation, modifications to lines, switching of provider or repairing a fault.***

- In total, over four in five respondents (83%) had contact with Ethernet leased line providers, having experienced: a new Ethernet leased line installation (59%), a modification of an Ethernet leased line (38%), a switch between Ethernet leased line providers (34%), having reported a fault on their Ethernet leased line (65%) or had a fault fixed on their Ethernet leased line (57%).
- Switching between providers of Ethernet leased lines and new installations of Ethernet leased lines were reported to be completed as scheduled by 60% of respondents who had experienced those activities. Those who had experienced a delay were asked the extent of the impact and reports of delays ranged from 1 to 10 days (for 33% of respondents) up to more than 60 days (20%).
- Faults on Ethernet leased lines were more often fixed remotely (59%) than via a visit (44%), although a visit was required in 44% of repairs. Almost nine in ten respondents reported that faults were fixed as scheduled (87%), whereas only six in ten respondents reported installations/switching were completed as scheduled (60%).

### 5.2.1 Introduction

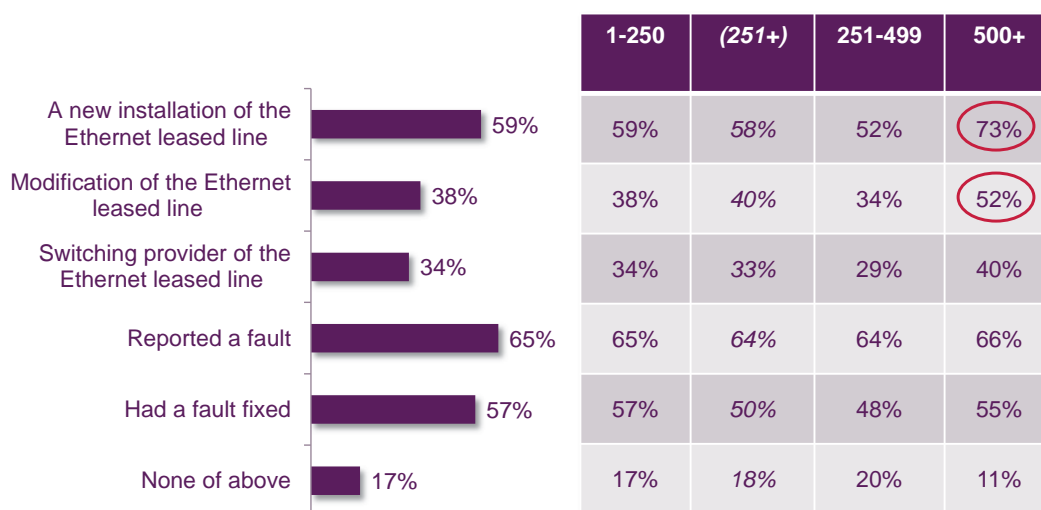
Respondents were asked about experiences they may have had with their Ethernet leased line related to: installations, modifications, switching of provider and reporting faults which had occurred and/ or been completed under their supervision. Results are detailed in this section.

## 5.2.2 Types of activity experienced

Over four in five respondents (83%) had experienced either an installation, modification, switch, or a fault report/repair on an Ethernet leased line which had been completed under their supervision. Fault reports were the most common experience (65% had reported a fault and 57% had a fault fixed on their Ethernet leased line), followed by a new installations of an Ethernet leased line (59%), modification of the Ethernet leased line (38%), and switching of provider of the Ethernet leased line (34%). Results are detailed in Figure 5.7 below.

Organisations with 500 or more employees were the most likely to have experienced an installation (73%), as well as a modification (52%) and a switch of provider (40%). In the case of installation and modification the difference is significant when compared to the 1-250 employee band (59% and 38% respectively).

**Figure 5.7 Ethernet leased line related activities completed under supervision of respondent (Total)**



Base: Total (n=450), 1-250 (157), 251+ (293), 251-499 (118\*), 500+ (175)

Source: Q18. Which of the following activities concerned with your Ethernet leased line have been completed under your responsibility? / Q18a. Have you ever reported a fault on your Ethernet leased line? / Q18b. Was the fault on your Ethernet leased line fixed under your responsibility?

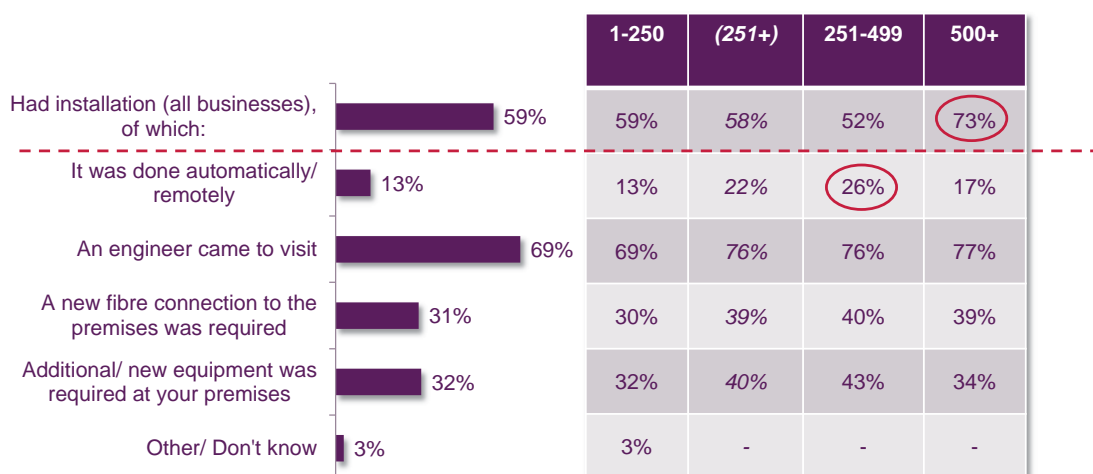
### 5.2.3 Installation and switching

Those respondents who had experienced a new Ethernet leased line installation (59% of the sample) were asked how the Ethernet leased line was installed. Results are shown in Figure 5.8, below.

In the majority of cases, installations necessitated an engineer's visit (69%), with just 13% of installations being undertaken 'automatically/ remotely'. Approaching a third (31%) required a new fibre connection to the premises, and for a similar proportion (32%) 'additional/ new equipment was required at their premises'.

It was the larger organisations with 251 to 499 employees which were most likely to have their installation carried out remotely (26%) compared to 13% of those in the 1-250 size band.

**Figure 5.8 How Ethernet leased line installation took place**



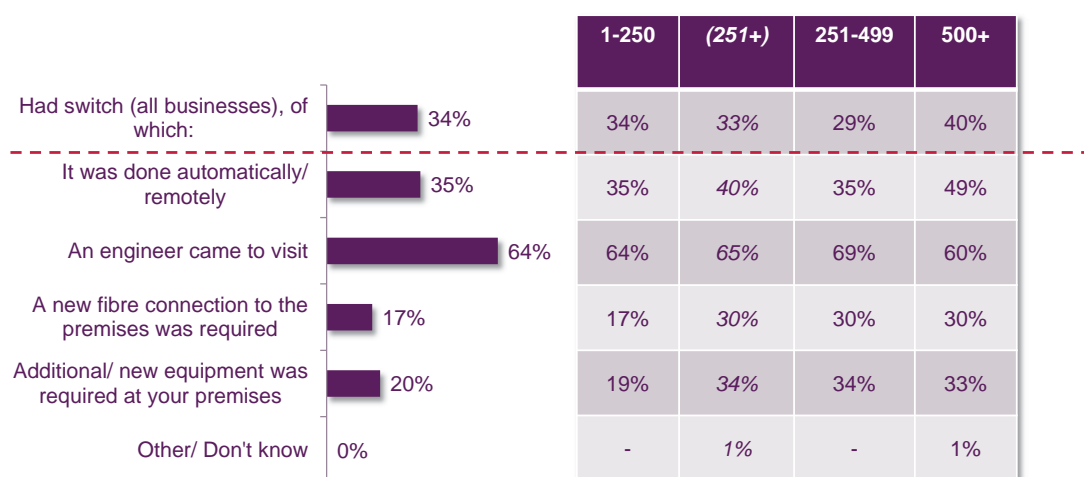
Base: All who had a leased line installed under responsibility of respondent (284), 1-250 (93\*), 251+ (191), 251-499 (67\*\*), 500+ (124\*)

Source: Q19. How was your Ethernet leased line INSTALLED?



A third (34%) of Ethernet leased line users surveyed had experienced a switch between suppliers of their Ethernet leased line. Of these respondents, almost two-thirds (64%) indicated that an engineer's visit was required (a similar proportion to new line installation). However, a greater proportion than for new line installation (35% vs. 13%) had the switch done 'automatically/ remotely'. Around a fifth required a 'new fibre connection to the premises' (17%) and/ or 'additional/ new equipment' (20%).

**Figure 5.9 How switch took place**



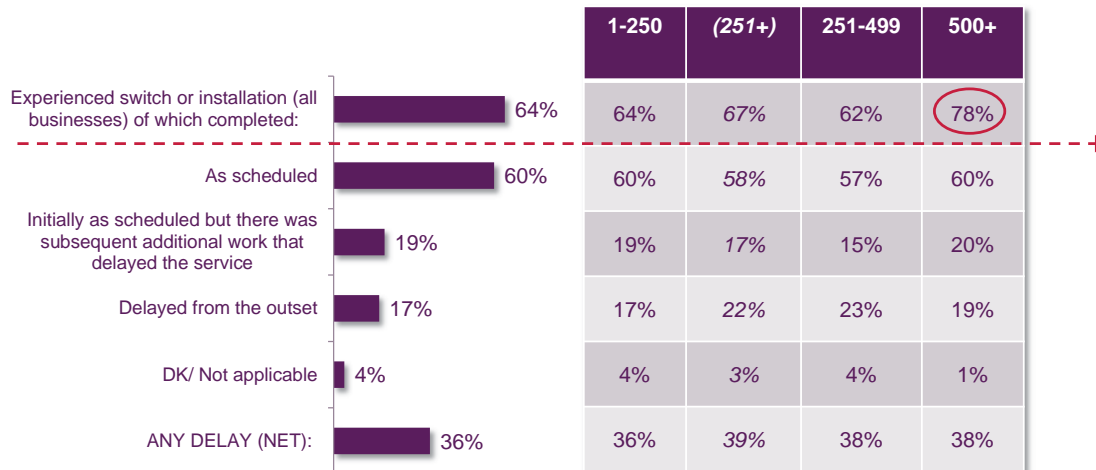
Base: All who had a leased line switched under responsibility of respondent (162), 1-250 (56\*\*), 251+ (106\*), 251-499 (39\*\*), 500+ (67\*\*)

Source: Q19. How was your Ethernet leased line SWITCHED?

The total proportion of respondents who experienced either a new Ethernet leased line installation or a switch between providers under their supervision was almost two thirds (64%). Those respondents were asked whether the provision was completed as scheduled and the results are illustrated in Figure 5.10, on the following page. For three in five (60%) this was the case. One in five (19%) recalled that the installation/ switch was 'completed initially as scheduled but that there was subsequent additional work', and a similar proportion that it was 'delayed from the outset' (17%).

This equated to a little over a third (36%) of Ethernet leased line users surveyed who had experienced a new line installation or a switch of provider experiencing some level of delay on at least one occasion (multiple occurrences, i.e. an installation and a switch, were not explored but could have been experienced). This translates to over a fifth (23%) of the overall sample had experienced a delay in an installation or switching their Ethernet leased line.

**Figure 5.10 Completion of the switch or installation of the Ethernet leased line**



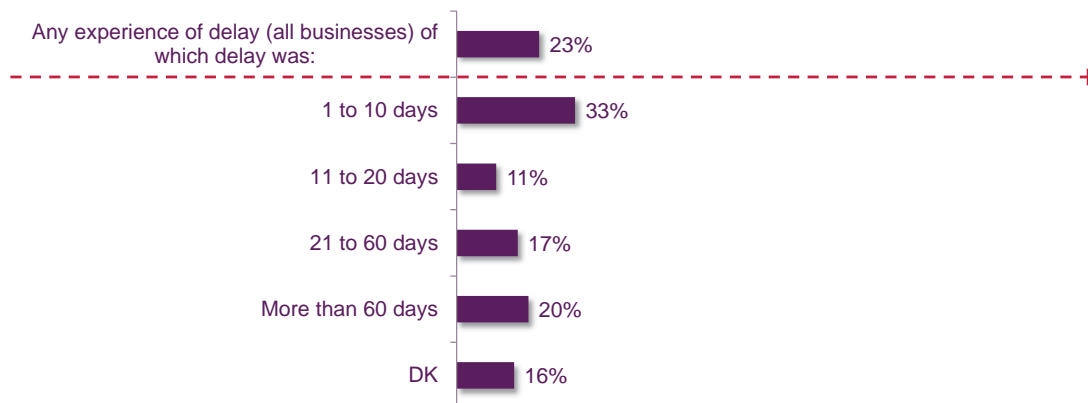
*Base: All who had a leased line installed or switched under responsibility of respondent (313), 1-250 (103\*), 251+ (210), 251-499 (78\*), 500+ (132\*)*

*Source: Q20. When the Ethernet leased line was connected, was the provision...?*

Those respondents who stated that they had experienced some kind of delay in an installation or switching of an Ethernet leased line under their supervision were asked about the extent of the delay in working days. There was a wide range in responses as illustrated in Figure 5.11, below.

For a third (33%) of those with a delay in an Ethernet leased line installation or a switch of provider, this was limited to between 1 to 10 days. However, one in five (20%) indicated the delay they experienced was more than 60 days.

**Figure 5.11 Extent of delay experienced on installation or switch**



*Base: All who had delay in their installation or switch (112)*

*Source: Q.22 How many working days after the initial date you were provided did the installation take to be successfully completed?*

## 5.2.4 Modifications

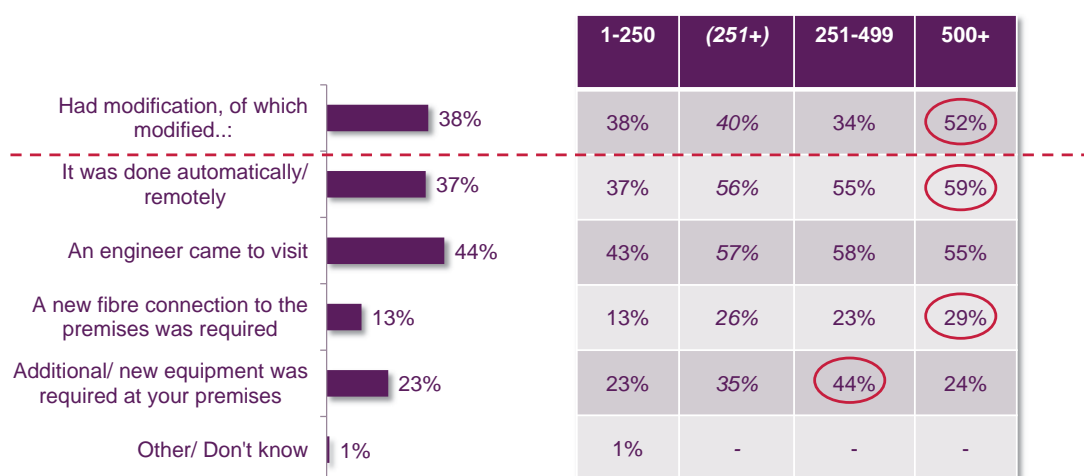
Around two in five (38%) respondents had experienced a modification on their Ethernet leased line). Unlike installations or switching, when experienced, modifications were almost as likely to be carried out ‘automatically/ remotely’ (37%) as ‘via an engineer’s visit’ (44%). It was less common (13%) for a new fibre connection to the premises to be required, or ‘additional or new equipment’ (23%).

It was the largest organisations (500+) which were the most likely (significantly) to have an ‘automatic/ remote’ modification (59% vs. 37% 1-250).

These largest organisations were also the most likely to require a new fibre connection to the premises (29%), significantly more than the 13% of the 1-250 sized organisations that underwent a modification to their Ethernet leased line.

Almost double the proportion of respondents in organisations with 251 to 499 employees required ‘new/ additional equipment’ for their Ethernet leased line modification compared to those with 1-250 employees (44% vs. 23%).

**Figure 5.12 How modification took place**



Base: All who had a leased line modified under responsibility of respondent (190), 1-250 (53\*\*), 251+ (137\*), 251-499 (47\*\*), 500+ (90\*\*)

Source: Q19. How was your Ethernet leased line MODIFIED?

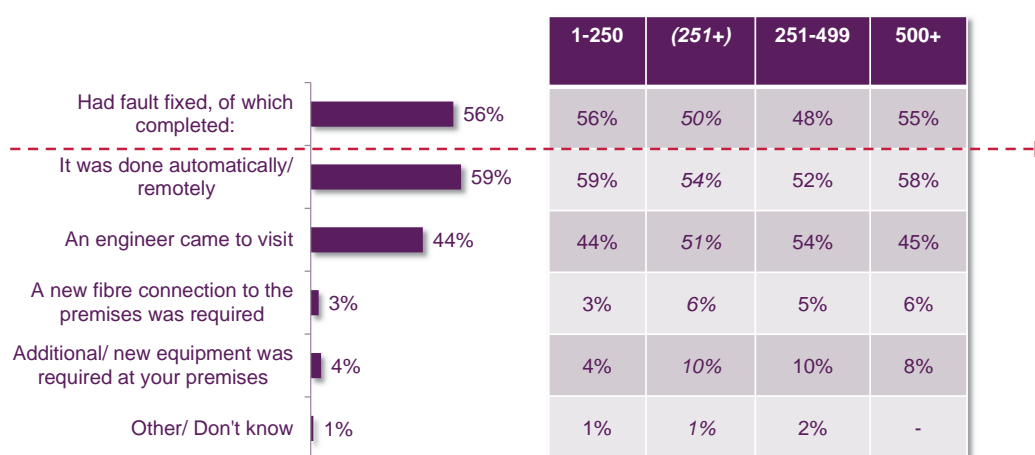
### 5.2.5 Fault repair

Over half of the sample (56%) recalled a fault being **fixed** under their responsibility on their Ethernet leased line, as illustrated in Figure 5.13 below. There was no significant difference by organisation size in the incidence of this occurring.

Unlike installation of new Ethernet leased lines and switching providers of Ethernet leased lines, repairs were **more** often conducted 'automatically or remotely' (59%), than 'via an engineer's visit' (44%). It was **infrequent** for a repair to necessitate 'a new fibre connection' (3%) or 'additional/ new equipment required at their premises' (4%).

There were no significant differences in the types of fault repair required by organisation size.

**Figure 5.13 How repair took place**



Base: All who had a leased line repaired under responsibility of respondent (238), 1-250 (78\*), 251+ (160\*), 251-499 (62\*\*), 500+ (98\*)

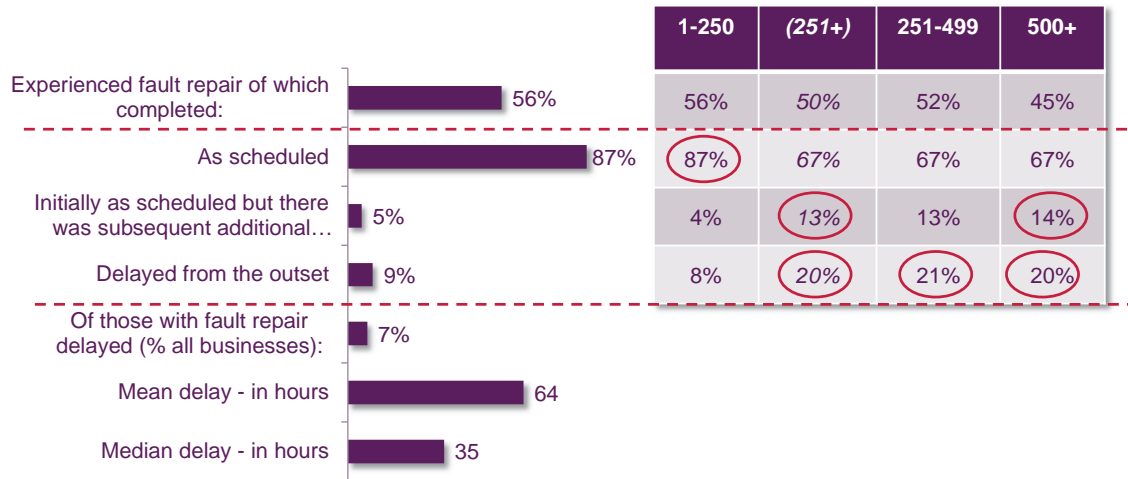
Source: Q19. How was your Ethernet leased line REPAIRED?

Those respondents who had experienced a fault repair were asked whether it was completed as scheduled. For 87% of respondents, this was the case as outlined in Figure 5.14, below. However, there was some variety by organisation size with the smaller organisations (1-250) the least likely to report a delay (87%) compared to 67% of those with more than 250 employees.

A minority (5%) indicated that the repair was conducted initially as scheduled but required subsequent additional work and almost one in ten (9%) stated that the repair was delayed from the outset. However, for 20% of organisations with more than 250 employees, repairs were delayed from the outset.

Of all organisations surveyed this equates to 7% experiencing a delay on a fault repair. The mean delay was 64 hours (likely to be consecutive), although the median (which is an average which excludes extreme outliers) suggests the average to be around 35 hours.

**Figure 5.14 Completion of the Ethernet leased line repair**



Base: All who had a fault repaired under responsibility of respondent (238)/ All who had a delay in fault repair (60), 1-250 (78\*), 251+ (160\*), 251-499 (62\*), 500+ (98\*)

Source: Q23. When the fault was fixed was it completed...? / Q25. How many hours after the timescale you were provided did the repair take to be successfully completed?

## 5.3 Importance of service elements in selection of a communications provider for a business's Ethernet leased line

### SUMMARY:

***'Reliability' of performance was key for Ethernet leased line users in choice of provider.***

- 'Reliability' (in terms of performance) was the most important feature when selecting a communications provider for Ethernet leased lines. It emerged as more than twice as important compared to 'responsiveness to faults', the next highest rated attribute, with a 'score' of 44 vs. 16. 'Speed (bandwidth)' came in third place (14). Other attributes fell some way behind in terms of importance.
- There were relatively little differences in ranking by size of organisation. That said, the ranking score for 'reliability' was higher for the SME (1-250 employees) sample at 44, vs. 38 for the larger organisations (251+).

### 5.3.1 Introduction

One of the key elements for the research to uncover was the relative importance of service elements in the selection of an Ethernet leased line provider. If respondents were simply asked to rate service features on how important they are, it could be difficult to see any differentiation or hierarchy, as all *may* be thought of as 'important'. Therefore a trade-off technique called 'Max Diff' was used (also known as pairwise comparisons, or stated importance), which forces a choice for respondents and produces a hierarchy of importance.

Several different attributes were measured, including those directly related to service providers and those which were outside of the direct scope, for example, 'trusted supplier brand' and 'price'. The full list of attributes were:

- Price
- Performance – speed/bandwidth
- Performance – reliability
- Value added service available
- Customer service (i.e. front line response to queries and issues)
- Project management (support and information on installations and other service provision)
- Responsiveness to faults
- Speed of installation
- Fixed-price up front for installation
- Confidence that installation completion date will be met
- Trusted supplier brand

Respondents were asked to select the most important factor from a series of pairs. The pairs were pre-selected using a statistical process to ensure that all elements were covered to provide an adequate trade-off to give a score for each element. The question in this survey was as follows.

*“When selecting your communications provider for your business’s Ethernet leased lines; we would like to know what factors are important to you. I am going to read out some different pairs of items. For each pair, please tell me which item is the most important to you when choosing between communications providers. In conducting this exercise, please assume that you do have a choice between at least two different providers.”*



### 5.3.2 Importance ranking

Results were then analysed and a 'ladder' of importance produced, which is illustrated in figure 5.15. In order to establish a hierarchy, based on their scores, attributes have been grouped into 'top' importance, 'upper middle', 'lower middle' and 'low'. These groupings are simply to aid interpretation.

Using this classification, it was clear that the attribute of most importance to Ethernet leased line users in their selection of a provider for Ethernet leased lines was 'Performance – reliability'. With a score of 43.7 for all respondents this is more than twice as important as the next ranked attribute – 'Responsiveness to faults' (16.2).

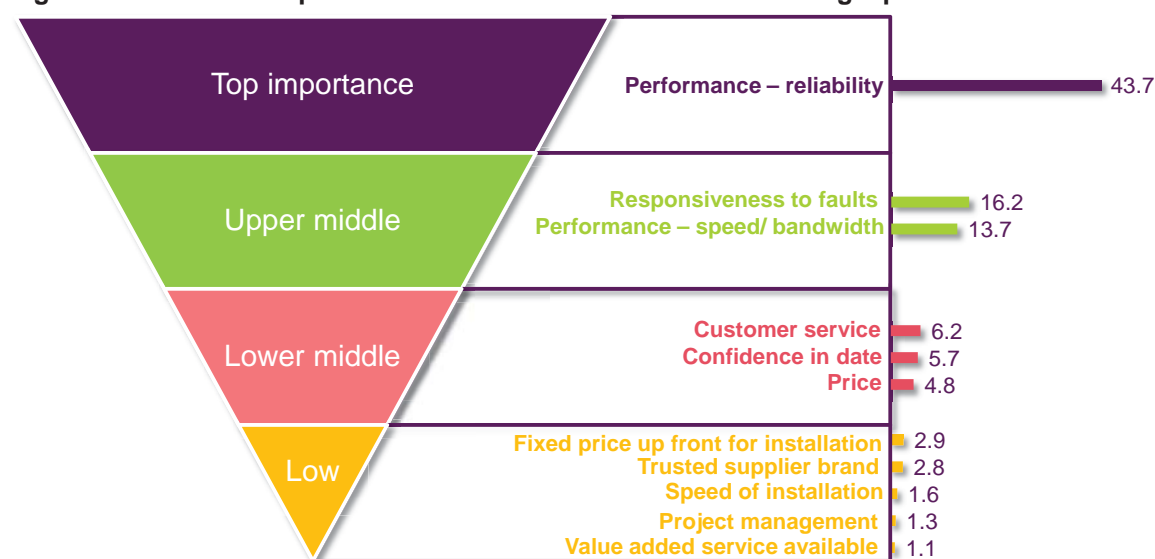
'Performance – speed/ bandwidth' is the 3<sup>rd</sup> highest in terms of importance (13.7), with 'Reliability' more than three times more important.

'Price' features as a 'lower middle' attribute with an importance score of 4.8. (NB: This is similar to the finding from the 2013 Quality of Service research where price was also a mid-range attribute for small and medium enterprises. This research was amongst a wider sample and regarded all fixed line telephony. Please see details in figure A.1 in the appendix.)

'Customer service' (6.2) is rated as a higher attribute than the related 'Project management' (1.3). 'Trusted supplier brand' is a low feature (2.8) as is 'Fixed price up front for installation' (2.9), 'Speed of installation' (1.6), and 'Value added service available' (1.1).

The only attribute related to delivery of installation which was not in the 'low' range was 'Confidence that installation completion date will be met' (5.7). This scored more than price (4.8).

**Figure 5.15 Relative importance of service features when selecting a provider**



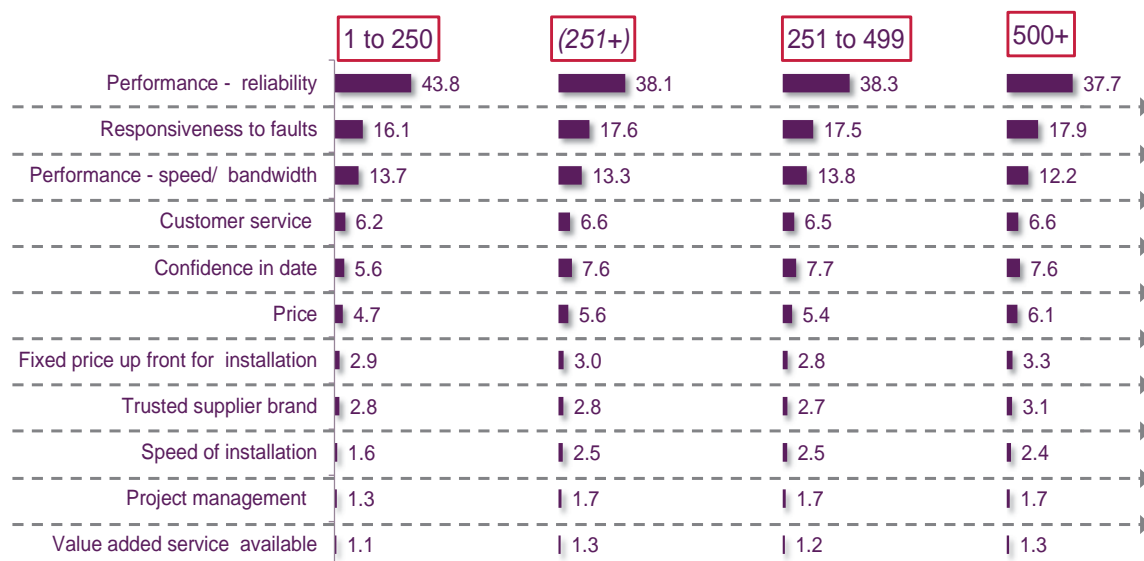
Base: Total (450)

Source: Q1a. When selecting your communications provider for your business's Ethernet leased lines; we would like to know what factors are important to you. I am going to read out some different pairs of items. For each pair, please tell me which item is the most important to you when choosing between communications providers.

Importance scores have been split by organisation size in figure 5.16. There were some (relatively minor) variances in score in size bands (1-250 and 251 or more) and resultant rankings. 'Performance – reliability' was the top scoring attribute for both size bands however, the ratio between this and that 2<sup>nd</sup> in importance ('Responsiveness to faults') was lower for organisations with more than 250 employees (2.2 vs. 2.7).

'Confidence that installation completion date will be met' had a score of 5.6 for the 1-250 size band respondents compared to 7.6 for those with more than 250 employees and as a consequence it is above 'Customer service', the 4<sup>th</sup> most important attribute. 'Price' and 'Speed of installation' attributes, scored higher for those with more than 250 employees ('price' 5.6 vs. 4.7 with 1-250, 'speed of installation' 2.5 vs. 1.6). However, their placement in the ranking was the same.

**Figure 5.16 Relative importance of service features when selecting a provider – by organisation size**



Base: Total (450), 1-250 employees (157), 251+ (293), 251-499 (118\*), 500+ (175)

Source: Q1a. When selecting your communications provider for your business's Ethernet leased lines; we would like to know what factors are important to you. I am going to read out some different pairs of items. For each pair, please tell me which item is the most important to you when choosing between communications providers. In conducting this exercise, please assume that you do have a choice between at least two different providers.

## 5.4 Key elements in installation of Ethernet leased lines service provision

### SUMMARY:

***Criteria for a 'reasonable' installation for an Ethernet leased line is spread across several different elements of the process.***

- In order to understand the importance of differing aspects of the installation process, a trade-off technique called 'conjoint analysis' was conducted. For this, respondents were presented with a number of installation scenarios and asked how reasonable they found each one. The scenarios had differing levels of service for certain attributes that make up the installation process.
- Four attributes came out with approximately equal importance, namely:
  - The time until the activation date
  - Whether you are provided with updates on the installation
  - Whether the service is activated on schedule
  - The time for key milestones to be met if their agreed date is missed
- Attitude statements confirmed the findings of the conjoint analysis (that speed of installation is not the only component of value), as there were a majority of respondents indicating that they agreed 'I would rather wait longer for my installation appointment if it meant greater confidence that the installation completion date would not be missed' (76% agreed).

### 5.4.1 Introduction

The 'Max Diff' analysis establishes where service elements (installation/ fault repair) at an overall level fit into the overall choice of provider for Ethernet leased lines. In order to understand how respondents with Ethernet leased lines react to different service components in an Ethernet leased line installation, a different type of trade-off technique was used, called 'conjoint analysis'. A full description of how the technique was applied follows.

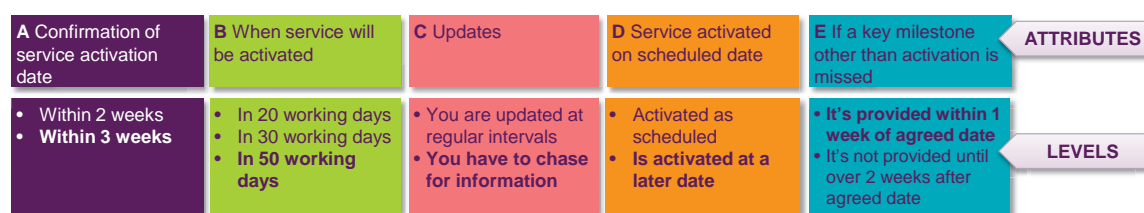
## How the conjoint analysis was conducted

Respondents were asked to indicate how 'reasonable' they found an entire installation scenario related to an Ethernet leased line was to them. Each scenario comprised 5 different **attributes**, which each contained 2 or 3 different potential **levels** of service. Respondents were provided 4 different scenarios and each scenario provided differed in the levels of service included. There were 384 statistically designed scenarios evaluated in total to ensure an adequate trade off was made of all the different attribute levels.

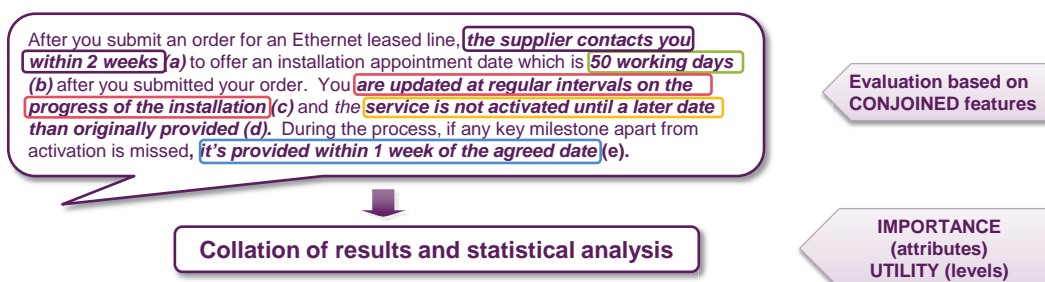
The impact of changing the different levels was then ascertained during analysis to establish their importance in driving particular responses to the scenarios by respondents.

Figure 5.17 shows how the different attributes and levels were substituted in the questionnaire, and hence how the technique worked during data collection. In the example 'speech bubble', the different coloured circles around text indicate the level being tested, and the letter refers to the attribute. It was the levels in the scenarios that were changed (second line of boxes) rather than the attributes themselves (top boxes).

**Figure 5.17 Process of conjoint questioning**



Conjoint program then selects a balanced sub-set to test, with different levels placed into scenarios evaluated by respondents. Letter indicates the attribute type and colour for level



The scenarios were read to respondents and they were encouraged to note the different elements so that they could provide a response to the overall picture.

*"I am going to outline another scenario to you, please imagine it applies to your business. You may want to note down the different elements of the scenario if you have a pen and paper to hand. You want to get a new Ethernet leased line installed and are informed that it will be necessary for an engineer to visit to complete the installation.*

*After you submit an order for an Ethernet leased line, **the supplier contacts you within 2 weeks (a)** to offer an installation appointment date which is **50 working days (b)** after you submitted your order. You **are updated at regular intervals on the progress of the installation (c)** and the **service is not activated until a later date than originally provided (d)**. During the process, if any key milestone apart from activation is missed, **it's provided within 1 week of the agreed date (e)**."*

Following the scenario being outlined to them, respondents were asked to indicate how 'reasonable' they felt this level of service to be, using a 5 point scale from 'very reasonable' to 'completely unreasonable'. If they indicated that the scenario was not 'reasonable' to them, a question then followed asking what actions they would be likely to take in response. This question was unprompted so as to not unduly bias results.

## 5.4.2 Conjoint analysis results:

### 'Reasonable' installation

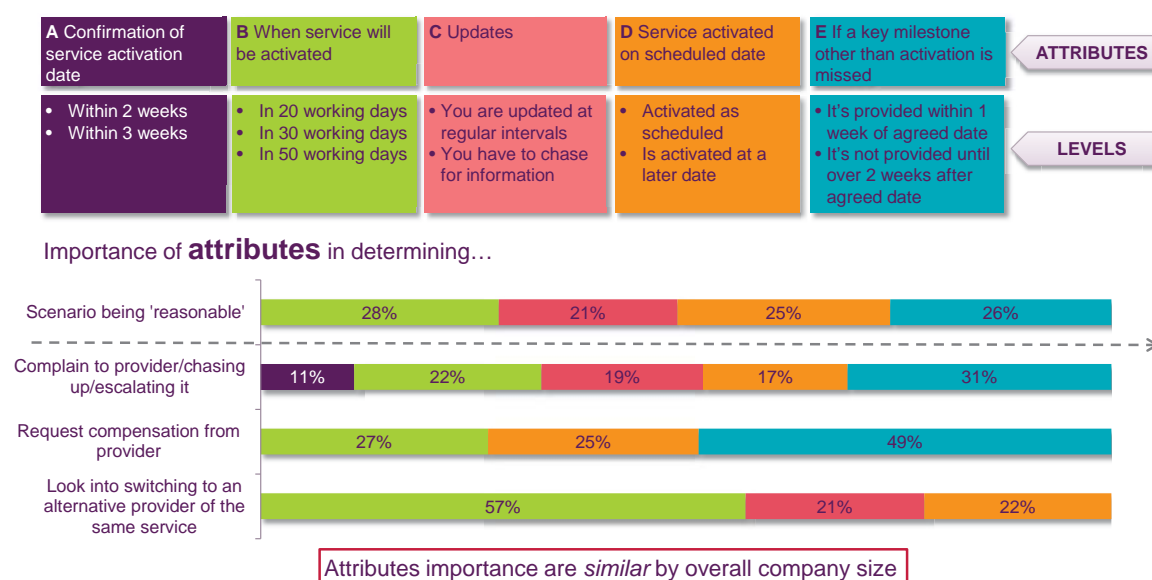
Figure 5.18 illustrates the different levels of importance attached to the attributes when respondents were asked to evaluate scenarios as 'reasonable' and in driving different behaviours when *not* found to be 'reasonable'. The key at the top shows what the **attributes** were, and the **levels** within those attributes that were being measured which can be cross-referenced by colour.

In Figure 5.18, below, the top bar shows the proportion that stated this was the single most important attribute influencing whether an Ethernet leased line installation scenario is perceived to be 'reasonable'. Four of the five **attributes** that were tested were found to be factors, and the importance of each was in fact very similar. These attributes were:

- 'when service is activated' (this was the most important attribute for 28% of Ethernet leased line users)
- 'if key milestones other than activation date are missed' (26%)
- 'service activated on scheduled date (25%), and
- updates (21%)

'Confirmation of service activation date' was not an important attribute in deciding if a scenario was reasonable for any of the Ethernet leased line users surveyed.

**Figure 5.18 Actions taken if scenario not 'reasonable'**



Base: Total (450)

Source: Q7a

Because the attributes are spread in their importance this means that no single area of installation measured is the key driving force in a 'reasonable' scenario for all organisations. For example, an activation date of 20 days alone will not make a scenario 'reasonable'.

Within these attributes there were levels measured. For A, C, D and E there are 2 levels. The key level in determining a 'reasonable' scenario in these levels is the top level. Therefore for level C it would be 'you are updated at regular intervals on the progress of the installation', for level D 'service activated as scheduled', and for level E 'if a key milestone other than activation is missed it is provided within 1 week of agreed date'.

For attribute B 'when service will be activated' three levels were measured: a wait of 20 days, 30 days and 50 days. Within this attribute it is the 20 and 30 day waits which drive the 'reasonable' scenario, rather than 50 days.

Importance was similar by organisation size.

### **Actions taken if scenario not 'reasonable'**

Using this conjoint technique it was also possible to determine if any of the attributes emerged as more important factors when influencing users to take a specific action if they were faced with a scenario not thought to be 'reasonable'.

In the case of influencing a respondent to 'complaining to providers (or chasing up/escalating)', the most important were the levels within the attribute was **if/when a key milestone other than activation was missed** (31%), followed by **when service is activated** (22%), **updates** (19%), **service activated on a scheduled date** (17%), with **confirmation of service activation date** the least influential attribute (11%).

Where the response to an 'unreasonable' scenario was to 'look into switching to an alternative provider', this was more driven by 'when service will be activated' (57%) than by 'updates' (21%) or 'service activated on scheduled date' (22%).

For the course of action to be 'request compensation from provider' this was more influenced by 'if a key milestone other than activation is missed' (49%). This attribute had 2 levels: 'it's provided within 1 week of agreed date and 'it's not provided until after 2 weeks after agreed date'. The level driving this was 'it's not provided until over 2 weeks after agreed date'. Other components were 'service activated on scheduled date' (25%) and 'when service will be activated' (27%).

## 5.5 Ethernet leased line installation scenarios

### SUMMARY:

***A ‘reasonable’ wait for an Ethernet leased line activation can vary considerably between organisations. However there is consensus that cost revisions following initial quotations must be minimal in order to be ‘reasonable’.***

- Following the conjoint ‘trade-off’, respondents were asked how long they thought it reasonable to wait for a new Ethernet leased line to be activated (‘reasonable’ was defined as not ideal, but what would be generally satisfactory to them). There was a wide range in responses, with the average ‘reasonable’ wait around 25-30 working days. However, 18% suggested they found a wait of 46 working days or more to be ‘reasonable’.
- Expectation of *actual* waiting time for an Ethernet leased line activation (defined as what they feel they would be likely to be offered) was in fact sometimes *lower* than what may have been regarded as ‘reasonable’. This can be deduced because the proportion indicating they would ‘expect’ an installation in 1 to 2 days is 11% compared to 6% who thought this timeframe was ‘reasonable’. Additionally, the median declines from 26 days to 17 days. However, the overall pattern of responses was similar.
- Over eight in ten respondents (84%) agreed ‘they would rather wait longer for a firm installation quotation than to risk finding out at a later stage that costs would be higher’. When presented with different levels of potential cost revision after being quoted an initial connection charge subject to survey when they placed their order, there was tolerance for upward adjustments only at low price intervals, for example a 5% additional connection charge was ‘reasonable’ for 71% of respondents, however, additional charges of 10%, 20% or 30% were more likely to be found ‘unreasonable’ than ‘reasonable’.

### 5.5.1 Time frame for installation to be ‘reasonable’

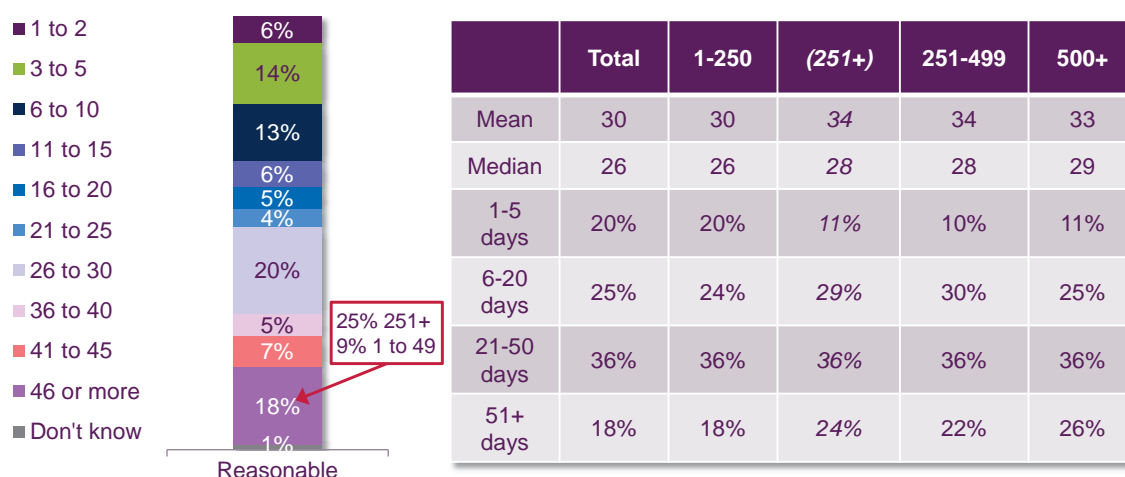
In order to understand what timeframes were considered to be ‘reasonable’ for an Ethernet leased line installation, respondents were read the following hypothetical question.

*“You call a communications provider to place an order for a new Ethernet leased line for your business. How long do you think is ‘reasonable’ for the maximum wait until the service is activated? ‘Reasonable’ does not have to mean your ‘ideal’ situation, but one that would be generally satisfactory to you. Please give your answer in terms of working days.”*

Their response was noted by the interviewer and no prompts were given. The range of responses as well as the different bands are provided in the following chart. It is important to note that the question is rooted in a hypothetical scenario rather than any specific past experience the respondent may have had.



**Figure 5.19 Time frame for installation to be 'reasonable' (working days)**



Base: Total (n=450), 1-250 employees (157), 251+ (293), 251-499 (118\*), 500+ (175)

Source: Q1. You call a communications provider to place an order for a new Ethernet leased line for your business. How long do you think is 'reasonable' for the maximum wait until the service is activated? 'Reasonable' does not have to mean your 'ideal' situation, but one that would be generally satisfactory to you. Please give your answer in terms of working days. UNPROMPTED

As can be noted from Figure 5.19, there was no one standard timeframe which was considered to be 'reasonable' for an Ethernet leased line installation for all respondents. What was considered to be 'reasonable' ranged from 6% for 1 to 2 days, to 18% tolerating 46 days or more (mostly comprising 60 days for 8% and 90 days for 8%).

The average Ethernet leased line installation timeframe considered to be 'reasonable' was 26 days from the median and 30 days from the mean. This was similar by employee size band. However, this is not to say that size of organisation does not play a part.

The 18% of respondents who considered a wait of 46 or more working days to be reasonable were more likely to be represented by larger organisations (25% 251+) than smaller (9% 1 to 49).

## 5.5.2 'Expected' time frame for installation

Following the question regarding a wait time considered to be 'reasonable' for an installation, respondents were read the following question.

*"And how long would you expect it to take? Your expectation does not necessarily have to reflect your 'ideal' or 'satisfactory' situation, but the time that you feel you would be likely to be offered in these circumstances. Please give your answer in terms of working days."*

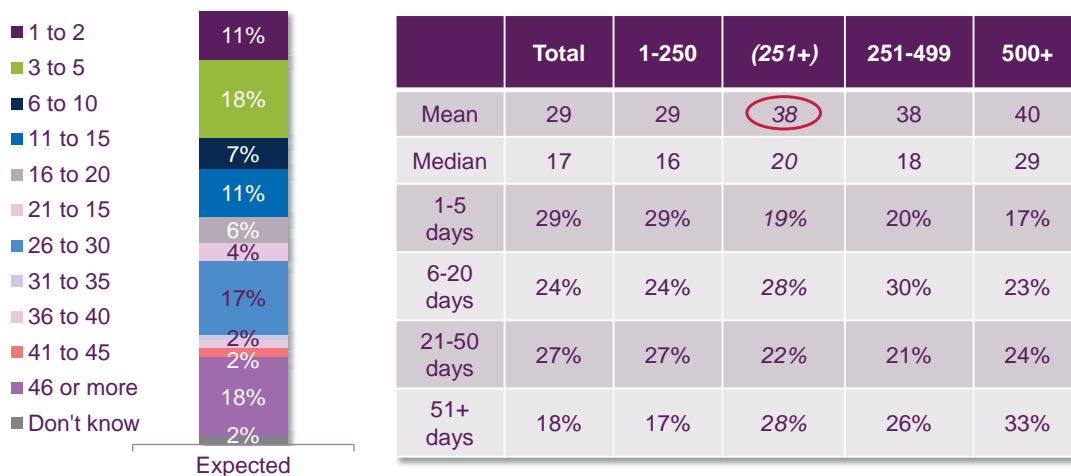
Again, respondents were not prompted. Their exact answer was recorded and this has been grouped into bands in the Figure 5.20, below.



Expected timeframes provided were sometimes less than the responses for what was considered to be 'reasonable'. This can be deduced because the proportion indicating they would 'expect' an installation in 1 to 2 days is 11% compared to 6% who thought this timeframe was 'reasonable'. Additionally, the median declines from 26 days to 17 days.

Following the same pattern as the 'reasonable' timeframe, a wide range of results was provided and those from the larger (251+ employee bands) were more likely to expect a lengthier wait. This resulted in a mean average of 38 days for organisations with more than 250 employees compared to 29 with fewer.

**Figure 5.20 'Expected' time frame for installation (working days)**



Base: Total (n=450), 1-250 employees (157), 251+ (293), 251-499 (118\*), 500+ (175)

Source: Q2. And how long would you expect it to take? Your expectation does not necessarily have to reflect your 'ideal' or 'satisfactory' situation, but the time that you feel you would be likely to be offered in these circumstances. Please give your answer in terms of working days. UNPROMPTED

### 5.5.3 Accuracy of installation costs subject to survey

Respondents were asked to place themselves into a hypothetical scenario for an Ethernet leased line installation but this time related to costs rather than timeframes. The scenario was that they had been provided **an initial connection charge subject to survey**. After the survey they were informed there **were additional connection charges**. Respondents were asked how 'reasonable' they considered each potential level of additional charge to be, i.e. at a level that they would continue with the order. Results are illustrated in Figure 5.21, below.

At the 5% additional cost level, 71% of Ethernet leased line users found this to be 'reasonable'. This broke down into 23% finding the additional cost to be 'very reasonable', 23% 'quite reasonable' and 25% 'only just reasonable'. The remainder (29%) split equally into 'slightly unreasonable' (15%) and 'very unreasonable' (15%).

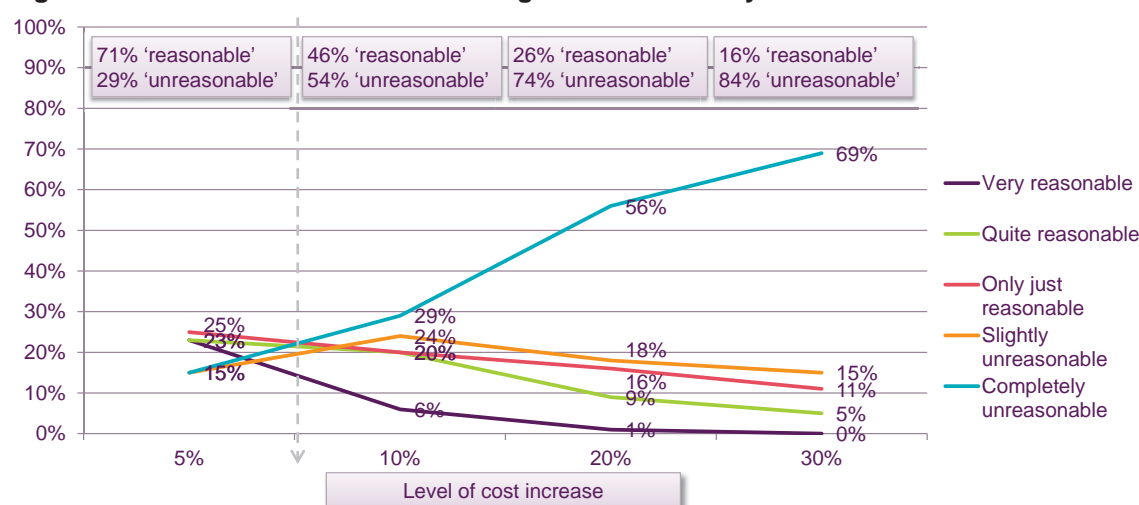
Tolerance for a 10% cost increase diminishes compared to a 5% increase, with 46% finding this to be 'reasonable'. 6% find it 'very reasonable', with 20% 'quite reasonable' and 20% 'only just reasonable'. 54% find this cost increase to be 'unreasonable' (24% 'slightly' and 29% 'completely').

A quarter (26%) of the sample felt a 20% cost increase was 'reasonable' (1% 'very reasonable', 9% 'quite reasonable' and 16% 'only just reasonable'). Three quarters (74%) considered a 20% cost increase to be 'unreasonable' – 18% 'slightly' and 56% 'completely'.

For a 30% cost increase, a minority (16%) considered it 'reasonable', with no respondents finding it 'very reasonable', 5% 'quite reasonable' and 11% 'only just reasonable'. The majority found this level of increase 'completely unreasonable' (69%) and 15% 'slightly unreasonable'.

Figure 5.21, below shows how the proportions stating that an increase is 'reasonable' (or otherwise) changes at each of the four levels of % increase.

**Figure 5.21 Levels of cost over-run thought 'reasonable' by Ethernet leased line users**



Base: Total (450)

Source: Q7cii. You are quoted an initial connection charge subject to survey when you place your order. After the survey, you are informed there will be additional connection charges. What level of additional cost do you consider to be reasonable, i.e. a level that you would continue with the installation?

### 5.5.4 Priorities in installations

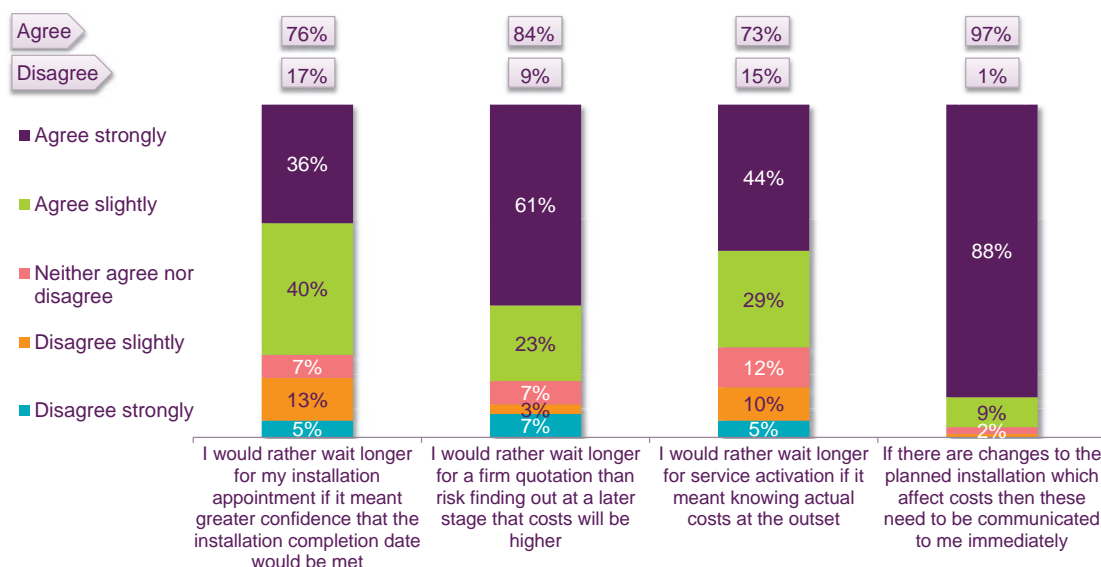
Respondents were read a series of statements related to installations of Ethernet leased lines and asked to indicate the extent they agreed or disagreed with each one. The full range of opinions expressed can be found in Figure 5.23, below.

Three in four (76%) Ethernet leased line users surveyed indicated they agreed that they 'would rather wait longer for my installation appointment if it meant greater confidence that the installation completion date would be met' (36% strongly, and 40% slightly).

84% agreed overall that they 'would rather wait longer for a firm quotation than risk finding out at a later stage that costs will be higher' (61% strongly, and 23% slightly). Just under three in four (73%) agreed they 'would rather wait longer for service activation if it meant knowing actual costs at the outset' (44% strongly, and 29% slightly).

Almost all respondents (97%) agreed that 'if there are changes to the planned installation which affect costs then these need to be communicated to me immediately', with 88% agreeing 'strongly'.

**Figure 5.23 Priorities in installations**



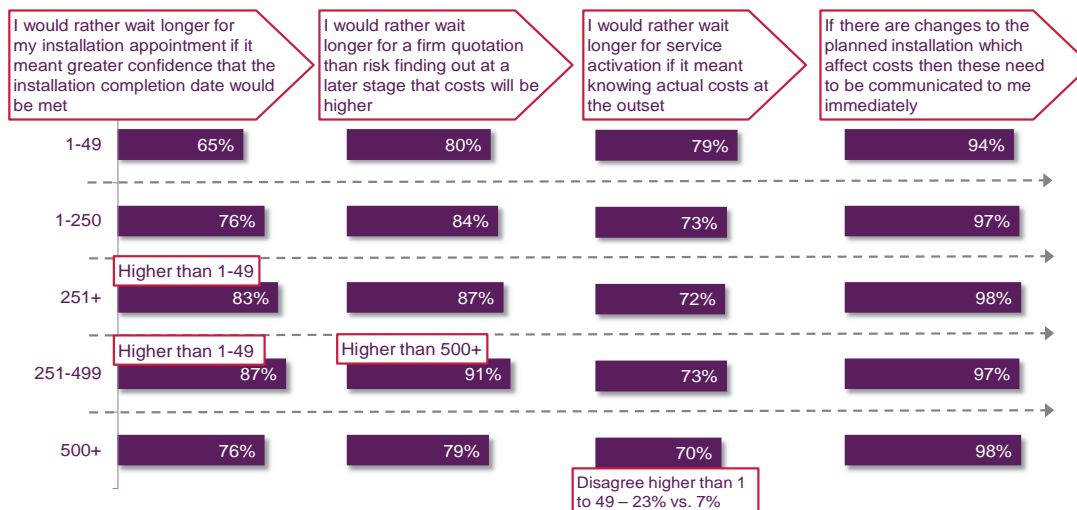
Base: Total (n=450)

Source: Q7Ci. I am going to read you some statements people have made about the installation of Ethernet leased lines. Can you please indicate how strongly you agree or disagree with each one?

There were few differences in the level of 'strong or slight' agreement by size of organisation, as shown in Figure 5.24, below. Those in the 251 to 499 size band were the most likely to agree that 'they would rather wait longer for my installation appointment if it meant greater confidence that the installation completion date would be met' (87%). This is significantly higher than 65% of respondents in organisations with 1 to 49 employees.

Those respondents with 500 or more employees were less likely to agree that ‘they would rather wait longer for a firm quotation rather than risk finding out at a later stage if costs would be higher’ (79%) than organisations with 251 to 499 employees (91%).

**Figure 5.24 Priorities in installations – net agree by organisation size**



Base: Total(n=450), 1-49 (50\*), 1-250 (157), 251+ (293), 251-499 (118\*), 500+ (175)

Source: Q7Ci. I am going to read you some statements people have made about the installation of Ethernet leased lines. Can you please indicate how strongly you agree or disagree with each one?

As illustrated in the table below, businesses with 500 or more employees were more likely to **disagree** than businesses with 1 to 49 employees that they would ‘rather wait longer for service activation if it meant knowing actual costs at the outset’ (23% vs. 7%).

**Figure 5.25 Agreement with statement ‘I would rather wait longer for service activation if it meant knowing actual costs at the outset’ by organisation size**

	1-49	1-250	251+	500+
<b>Agree strongly</b>	39%	44%	40%	37%
<b>Agree slightly</b>	40%	29%	32%	33%
<b>Neither agree nor disagree</b>	14%	12%	9%	7%
<b>Disagree slightly</b>	3%	10%	12%	15%
<b>Disagree strongly</b>	4%	5%	7%	8%

Base: Total(n=450), 1-49 (50\*), 1-250 (157), 251+ (293), 500+ (175)

Source: Q7Ci. I am going to read you some statements people have made about the installation of Ethernet leased lines. Can you please indicate how strongly you agree or disagree with each one?

## 5.6 Ethernet leased line fault repair

### SUMMARY:

***A ‘reasonable’ repair wait for an Ethernet leased line that has stopped working is a matter of hours.***

- For repair, 63% of respondents specified a wait of 1, 2, 3 or 4 hours for the service to be active again as reasonable (defined as but not necessarily ideal, but generally satisfactory to them).
  - 25% thought a wait of 1 or 2 hours would be ‘reasonable’ (although 35% would ‘expect’ this length of wait, i.e. feel they would be likely to be offered this)
  - Four per cent thought a wait of more than 24 hours was ‘reasonable’.
- The findings were similar when respondents were prompted with different bands of time for a fault on their Ethernet leased line to be fixed. Waits of 2 and 5 hours were considered to be ‘reasonable’ by the majority of respondents (95%, 69% respectively), while waits of 10 hours and 24 hours were perceived by a greater proportion to be ‘unreasonable’ (64%, 78% respectively) than ‘reasonable’ (36%, 22% respectively).

### 5.6.1 Time ‘reasonable’ for a repair

Respondents were asked to place themselves in the scenario of a fault repair occurring on their Ethernet leased line. The question asked was as follows:

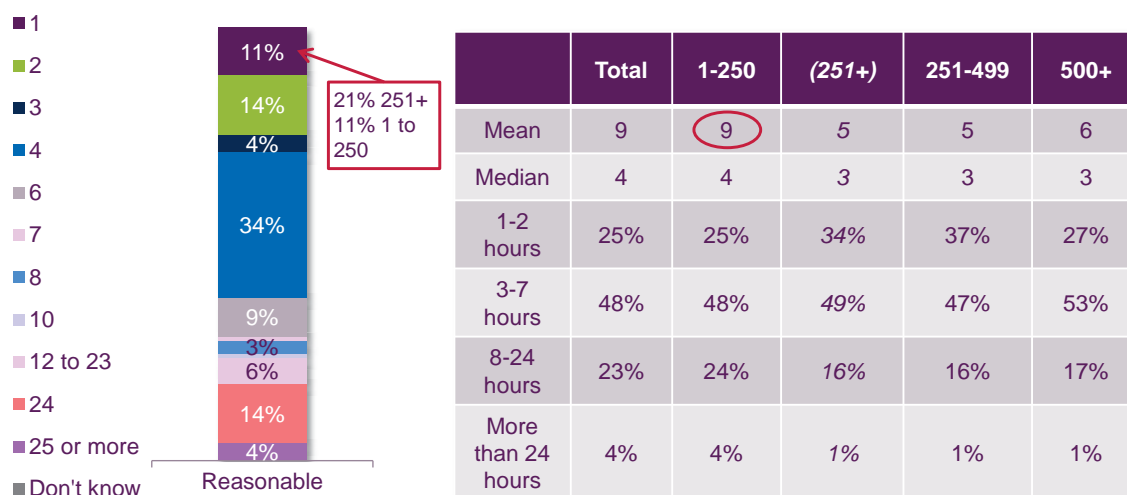
*“Your business’s Ethernet leased line has stopped working and you have called your communications provider to fix the problem. How long do you think is ‘reasonable’ for the maximum wait until the service is active again? ‘Reasonable’ does not have to mean your ‘ideal’ situation, but one that would be generally satisfactory to you. Please give your answer in terms of hours.”*

Respondents were not prompted and their answers were recorded and grouped where appropriate. Figure 5.26 below shows the range of responses that were given. The average (median) ‘reasonable’ wait is 4 hours. This is not to say that all Ethernet leased line users would find this level of wait to be ‘reasonable’. Indeed, 25% specify a wait of 1 hour or 2 hours to be ‘reasonable’. For some respondents, a ‘reasonable’ wait would include a longer period of time – 14% would find 24 hours to be ‘reasonable’. Therefore the mean average wait is higher at almost 9 hours – but 76% of respondents’ ‘reasonable’ wait would be below this level.

The wait was not specified to be working hours. The wait is from the report of the fault until it is active again.

Organisations with more than 250 employees were more likely to find a wait of 1 hour to be 'reasonable' than those with fewer employees (21% vs. 11%). Correspondingly the mean wait considered to be 'reasonable' for these larger organisations (251+) was lower than those with 1-250 employees (5, 9).

**Figure 5.26 Time 'reasonable' for a repair (hours)**



Base: Total (n=450), 1-250 (157), 251+ (293), 251-499 (118\*), 500+ (175)

Source: Q5. Your business's Ethernet leased line has stopped working and you have called your communications provider to fix the problem. How long do you think is 'reasonable' for the maximum wait until the service is active again? 'Reasonable' does not have to mean your 'ideal' situation, but one that would be generally satisfactory to you. Please give your answer in terms of hours. UNPROMPTED

### 5.6.2 'Expected' time frame for a repair

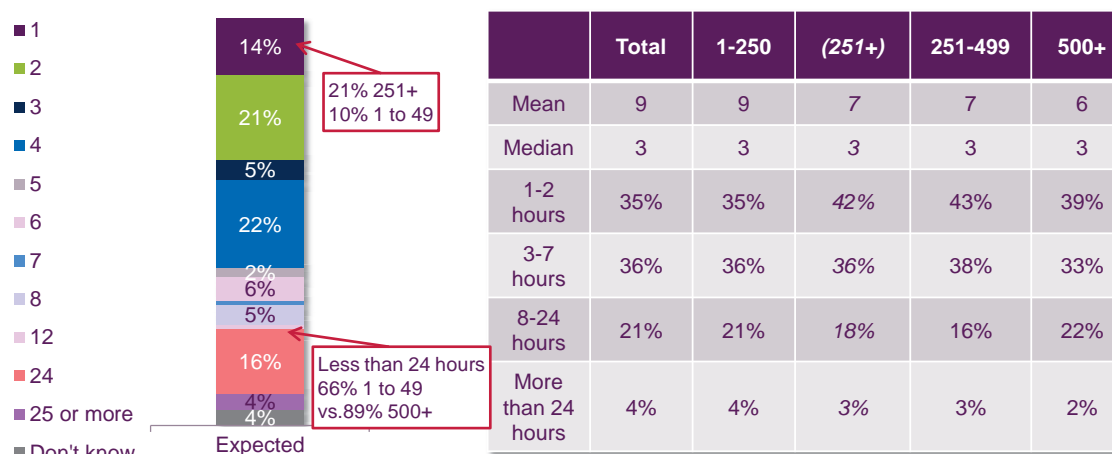
Respondents were then asked to indicate what level of wait they expected. The question wording was as follows:

*"And how long would you **expect it** to take? Your expectation does not necessarily have to reflect your 'ideal' or 'satisfactory' situation, but the time that you feel you **would be likely** to be offered in these circumstances. Please give your answer in terms of **hours**."*

The range of responses and the split by employee band is shown in the table below. As with the previous question, responses were not prompted and were recorded as an exact figure. The proportion of Ethernet leased line users that indicated they would 'expect' a wait of 1 or 2 hours was 35% – more than the 25% which would find this level of wait to be 'reasonable'.

The largest organisations (251+) were twice as likely as the smallest (1-49) to expect a wait of 1 hour (10% vs. 21%), and the mean score showed a similar lower tolerance (1 to 49 – 13, 251+ – 7).

**Figure 5.27 Time 'expected' for a repair (hours)**



Base: Total (n=450), 1-250 (157), 251+ (293), 251-499 (118\*), 500+ (175)

Source: Q6. And how long would you expect it to take? Your expectation does not necessarily have to reflect your 'ideal' or 'satisfactory' situation, but the time that you feel you would be likely to be offered in these circumstances. Please give your answer in terms of hours. UNPROMPTED

### 5.6.3 Time frames considered to be 'reasonable'

Four different potential timescales for a fault repair fix were provided to respondents and they were asked to evaluate how 'reasonable' they found each period of time to wait for a fault to be fixed to be using a scale from 'very reasonable' to 'completely unreasonable'.

The timescales tested were: 2 hours, 5 hours, 10 hour and 24 hours. As shown in figure 5.28, a timescale of 2 hours to wait for a fault to be fixed was 'very', 'quite' or 'only just reasonable' for 95% of respondents. Approaching two thirds (64%) found a wait of this length to be 'very reasonable'.

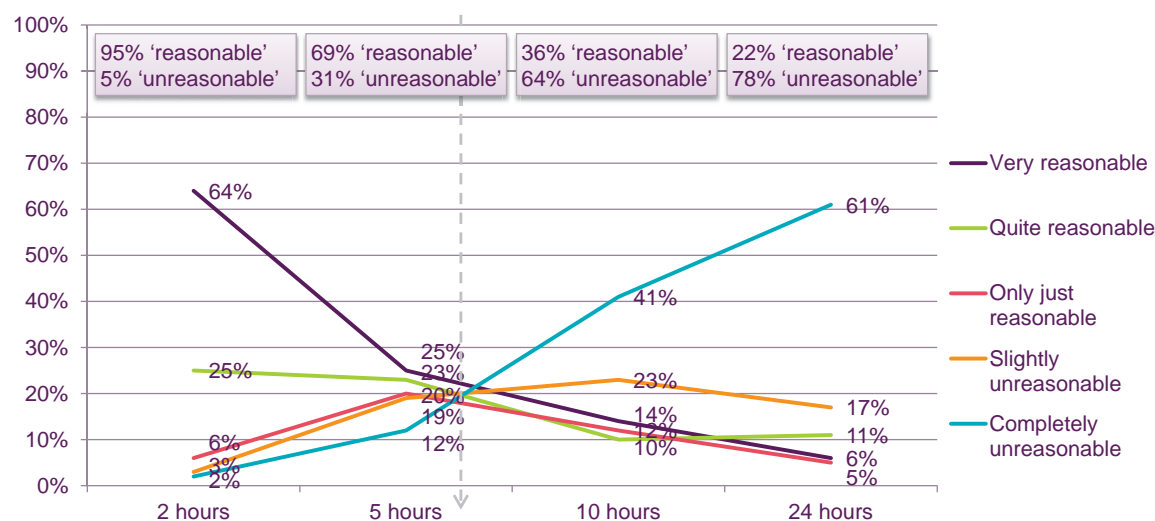
When the wait increased to 5 hours however, the proportion finding this to be in any way 'reasonable' ('very', 'quite' or 'only just') fell to 69%, with 25% indicating this to be 'very reasonable'. 31% found a wait of 5 hours to be either 'slightly' or 'completely unreasonable' (19%, 12%).

A 10 hour wait was 'reasonable' for just over a third in total (14% 'very', 10% 'quite', 12% 'only just'), and for the remainder was not 'reasonable' (23% 'slightly' and 41% 'completely unreasonable').

A fifth found a wait of 24 hours to be 'reasonable' (6% 'very', 11% 'quite' and 5% 'only just'), with the clear majority (78%) indicating a wait of this length to be 'unreasonable', in the most part 'completely unreasonable' (61% vs. 17% 'slightly').

Results were examined by size of organisation but no significant differences were found.

**Figure 5.28 Time frames considered to be 'reasonable' to wait for fix**



Base: Total (n=450)

Source: Q7D Thinking now about if there were a fault on your business's Ethernet leased line. How 'reasonable' are the following periods of time to wait for the fault to be fixed?



## 5.7 Attitudes to the reliability of business's Ethernet leased line

### SUMMARY:

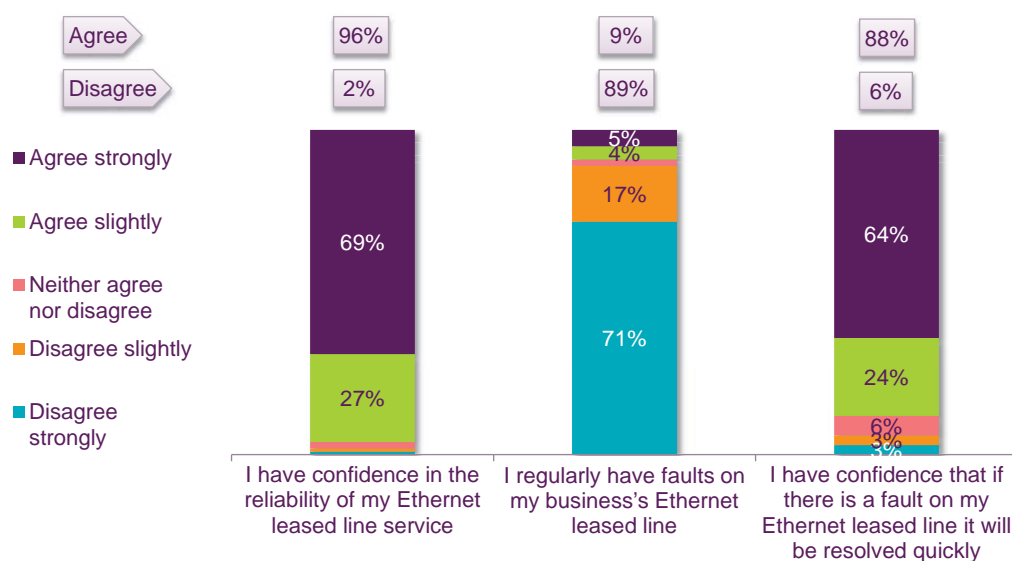
**Most respondents indicated they were confident in their Ethernet leased line and did not regularly experience faults.**

Almost all (96%) the Ethernet leased line users surveyed indicated that they agreed 'strongly' or 'slightly' that they have 'confidence in the reliability of my Ethernet leased line service'. The majority of agreement was 'strong' (69%), with 27% agreeing 'slightly'.

As shown in figure 5.29, the proportion indicating they agreed that they had 'confidence that if there is a fault on my Ethernet leased line it will be resolved quickly' was 88%. Again, the majority of agreement was at the 'strong' level (64%), with 24% 'slight'.

Around one in ten (9%) agreed that 'I regularly have faults on my business's Ethernet leased line'. The majority of respondents 'disagreed strongly' that this was the case (71%).

**Figure 5.29 Attitudes to the reliability of business's Ethernet leased line**

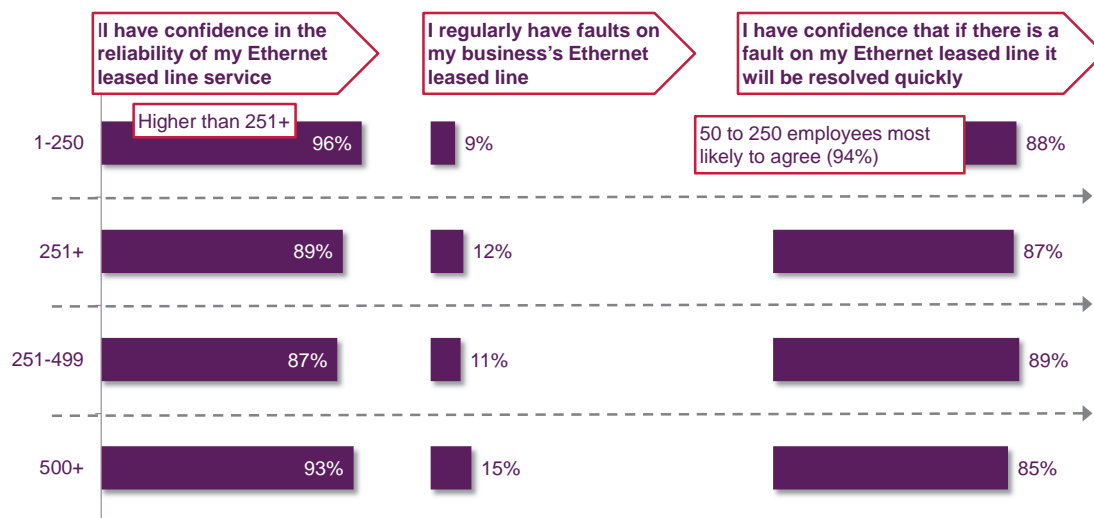


Base: Total (n=450)

Source: Source: Q26. Thinking now about your opinion about the reliability of your Ethernet leased line. Please indicate whether you agree or disagree with the following statements.

There were no significant differences between respondents split by employee size band in terms of 'strong' agreement to the different attributes measured. At an overall agreement level, the pattern of responses was also similar. It is worth noting however that those organisations with 1-250 employees were significantly more likely to express agreement that they 'have confidence in the reliability of my Ethernet leased line service' (96% vs. 89%). Additionally, although the difference was not significant, the largest organisations (500+ employees) were the most likely to agree that they 'regularly have faults on my business's Ethernet leased line' (15%) compared to 8% for those with 1 to 49 employees.

**Figure 5.30 Attitudes to the reliability of business's Ethernet leased line – net agree by organisation size**



Base: Total (n=450), 1-250 (157), 251+ (293), 251-499 (118\*), 500+ (175)

Source: Source: Q26. Thinking now about your opinion about the reliability of your Ethernet leased line. Please indicate whether you agree or disagree with the following statements.

## 5.8 Switching between providers

### **SUMMARY:**

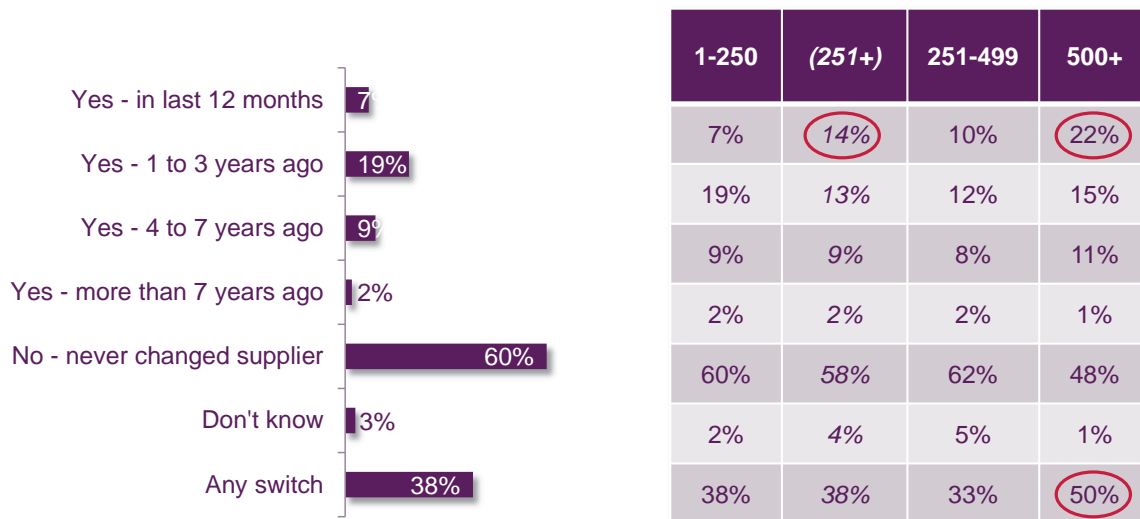
***A sizeable minority of the sample had switched provider of an Ethernet leased line. Switching of provider could be precipitated by less than reasonable activation scenarios, but were less likely to occur as a result of fault repairs taking longer than considered reasonable.***

- Two in five (38%) of the Ethernet leased line users sampled said they had ever switched their supplier of their Ethernet leased line. Switching the company which provided the Ethernet leased line 'in the last 12 months' amongst the largest organisations with 500 or more employees was more common (22% vs. 7% 1 to 250)
- Two in five (38%) respondents claimed they would consider switching to an alternative provider of an Ethernet leased line when they were presented with a service activation scenario they did not consider to be 'reasonable'. (NB: This included various different aspects of the scenario presented to respondents, including timescale.)
- 10% of respondents said they would consider switching to an alternative provider if a fault repair to their Ethernet leased line was taking longer than they felt was reasonable. But (both for activation scenarios that were 'unreasonable' and repairs which were taking longer than 'reasonable') the more common course of action indicated by respondents, would be to complain, chase up or escalate the issue (71% 'unreasonable' installation, 74% fault repair longer than 'reasonable').

### 5.8.1 Introduction

Respondents were asked if they had ever changed any company/ companies that provide their Ethernet leased line (i.e. switching provider). In total, two in five (38%) had done so. This proportion rose to 50% amongst organisations with more than 500 employees. Indeed, as shown in figure 5.31 below, a fifth (22%) of organisations that size had switched supplier in the last 12 months. This is compared to 7% in the overall sample.

**Figure 5.31 Incidence of switching Ethernet leased line provider, by organisation size**



Base: Total (n=450), 1-250 (157), 251+ (293), 251-499 (118\*), 500+ (175)

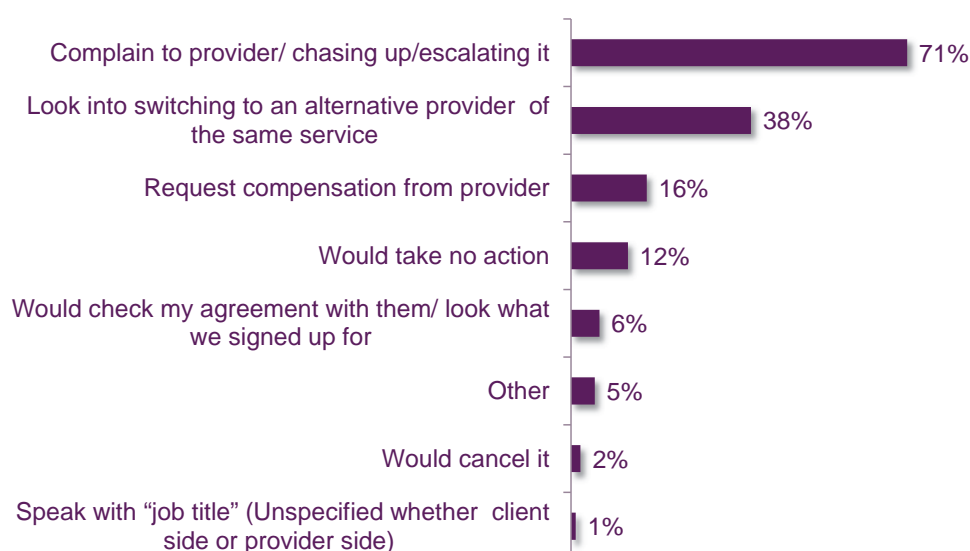
Source: Source: P2. Have you ever changed (any of) the company(s) which provides your Ethernet leased line? IF YES  
ASK When was this? PROMPT

## 5.8.2 Situations which may precipitate a change of supplier for Ethernet leased lines

### Installation

Where installation arrangements outlined in a scenario to respondents were not considered 'reasonable', respondents were asked what action, or actions they would be likely to take. Results are shown in figure 5.32. An 'unreasonable' scenario could have included a wait which was considered too long, or other factors. The most common action indicated was to 'complain to provider/ chase up/ escalate it' (71%), followed by 'look into switching to an alternative provider of the same service' (38%). A fifth (18%) would 'request compensation from provider', and this is something more likely to be considered by those in organisations with more than 250 employees (24%).

Figure 5.32 Actions would take if installation arrangements not 'reasonable'

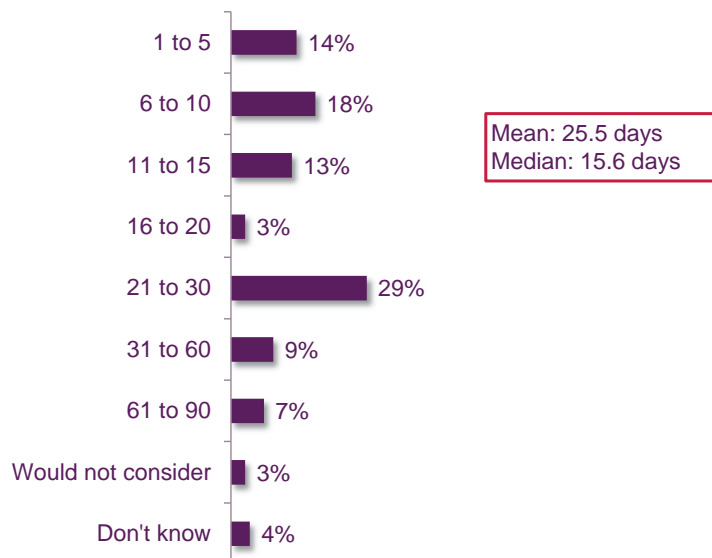


Base: All providing each response AT LEAST ONCE when asked about each of the 4 scenarios at Q7 (420)

Source: Q7c You said that this scenario was 'unreasonable'. In the event of this scenario happening to you what action or actions, if any, would you be likely to take?

Those respondents that indicated they would consider switching to an alternative supplier of the same service in an adverse installation scenario were asked how long they would wait for an installation of an Ethernet leased line before they would consider this course of action, with results shown in figure 5.33. There was a wide range in the level of wait that could trigger consideration of a 'switch' – from 14% for 1 to 5 days to 7% for 61 to 90 days. The average (median) was 16 days, whereas the longer waits tolerated by some respondents pushes the mean to 26 days.

**Figure 5.33 Length of wait for installation (working days) before considering switching**



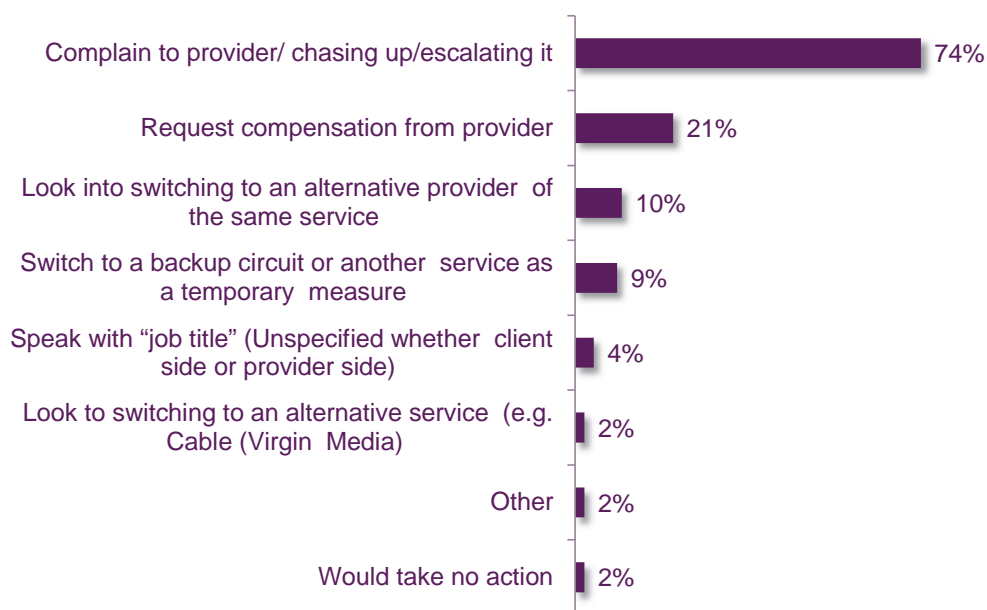
*Base: All answering who would consider switching if a fault repair was taking longer than they felt 'reasonable' (119)*

*Source: Q9b How long would you wait for an Ethernet leased line installation for your business before you considered switching to an alternate supplier? UNPROMPTED*

## Repair

A minority of those surveyed (10%) indicated that they would 'look into switching to an alternative provider of the same service if a fault repair to their Ethernet leased line was taking longer than they felt was 'reasonable'. A more common course of action was to 'complain to the provider/ chase up/ escalate it' (74%), with 21% indicating they would 'request compensation from provider' as shown in figure 5.34.

**Figure 5.34 Actions would take if repair arrangements not 'reasonable'**

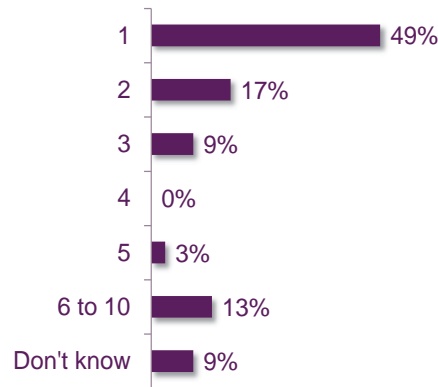


Base: Total(450)

Source: Q9a In the event that a fault repair to your business's Ethernet leased line was taking longer than you felt was 'reasonable', what actions, if any would you take? UNPROMPTED

Almost half (49%) those who would consider switching to an alternative provider of the same service if a repair was taking longer than they felt 'reasonable' said they would be triggered into this action with a wait of 1 day. However, for a minority (13%) this type of action would only be precipitated by a wait of 6 to 10 days. Full results are shown in figure 5.35.

**Figure 5.35 Length of wait for repair (working days) before considering switching provider**



*Base: All who would consider switching if a fault repair was taking longer than they felt 'reasonable' (45\*)*

*Source: Q9c How long would you wait for an Ethernet leased line repair for your business before you considered switching to an alternate supplier? Please give your answer in terms of working days. UNPROMPTED*



## 5.9 Interest in paying for an enhanced service

### **SUMMARY:**

***A minority of Ethernet leased line users surveyed indicated they would be 'very likely' to consider the service options outlined to them which offered the potential to pay for a service enhancement.***

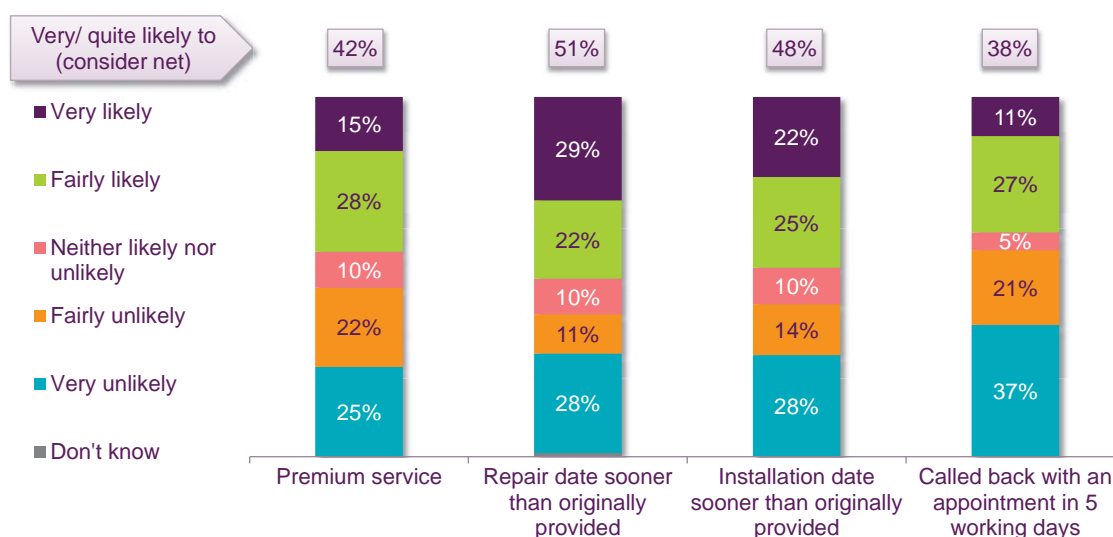
- All respondents were asked how likely they would be to consider using four different types of 'enhanced' services they would need to pay extra for. A minority (ranging from 11% - 29%) indicated that they were 'very' likely to consider using the different service types outlined to them. This level of consideration is the best indicator of likelihood (as opposed to 'quite likely'), but even this highest rating does not guarantee that the respondent would take up the offer in a real market situation. Consideration was not asked in relation to a specified price; therefore caution should be applied in extrapolating this into likely take-up of service.
- A 'Repair appointment sooner than the one originally offered' generated the greatest interest with 29% 'very likely' to consider paying for it. The next most popular option was 'confirmation of an installation appointment within 5 working days' with 11% 'very likely' to consider paying for it.
- Responses to other questions further suggest a reluctance to seriously consider paying for these options. For example, when asked what they felt would be reasonable to pay for an enhanced 'Premium' service, one in five Ethernet leased line users (22%) did not name any figure. A further two in five (42%) said they were either unwilling to pay at all.

### 5.9.1 Consideration

All respondents were asked how likely they would be to consider using four different types of 'enhanced' services that they would need to pay for. For all the different services tested a minority of respondents indicated they would be 'very likely' to consider using them. This ranged from 11% for 'being called back with an appointment in 5 working days' to 29% for a 'repair date sooner than originally scheduled'. Detailed results are shown in figure 5.36.

In total, around two in five (38%) said they were likely ('very' or 'fairly') to consider using the 'receive confirmation of the installation date within 5 working days' option. A similar proportion (42%) said they were likely to use the 'premium service'. (A 'premium service' was defined as "where you paid more than for the standard service but were provided with a dedicated project manager who liaised with you on a regular basis. It could also increase the chance of an agreed installation completion date being met."). Around half suggested they would be likely to consider paying for a 'repair date sooner than the one you are initially offered' (51%) and an 'installation date sooner than the one you are initially offered' (48%).

**Figure 5.36 Likelihood to consider using each service**



Base: Total (n=450)

Source: Q15 Thinking about all the options we just discussed with regard to your business's Ethernet leased line, please tell me how likely or unlikely would you be to consider using each one? So firstly paying for ... How likely or unlikely would you be to consider using this service?

Organisations with 1-250 employees had the highest proportion claiming they would be 'very likely' to consider 'repair date sooner the one you are initially offered' (29% vs. 16% amongst 251+). There were no other significant differences by size band, as shown in figure 5.37.

**Figure 5.37 Likelihood to consider using each service by business size**

	Very likely				Very or quite likely			
	1-250	(251+)	251-499	500+	1-250	(251+)	251-499	500+
Being called back with an appointment within 5 working days	11%	9%	9%	10%	38%	38%	40%	32%
Installation date sooner than originally provided	22%	15%	15%	15%	48%	47%	51%	41%
Repair date sooner than originally provided	29%	16%	18%	14%	51%	41%	42%	38%
Premium service	15%	14%	14%	13%	42%	41%	42%	38%

Base: Total (n=450), 1-250 (157), 251+ (293), 251-499 (118\*), 500+ (175)

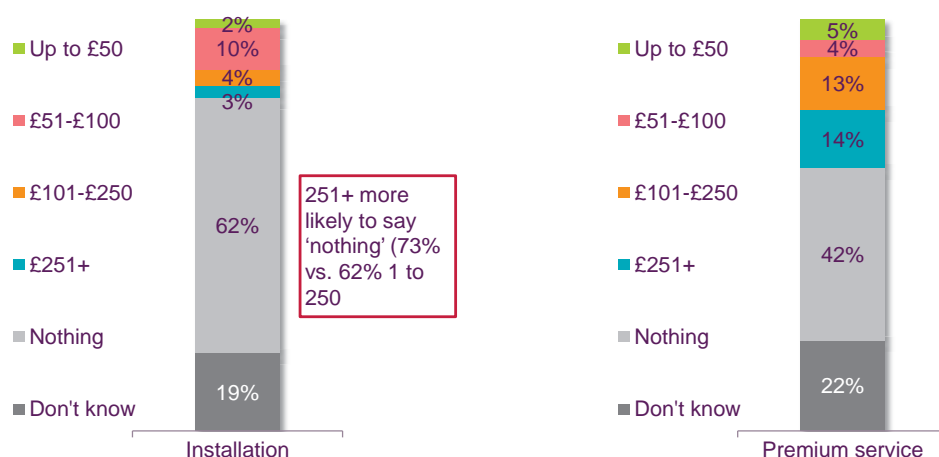
Source: Q15 Thinking about all the options we just discussed with regard to your business's Ethernet leased line, please tell me how likely or unlikely would you be to consider using each one? So firstly paying for ... How likely or unlikely would you be to consider using this service?

## 5.9.2 Amount 'reasonable' to pay

Respondents were asked to indicate how much they felt was 'reasonable' to pay for **confirmation of installation date in 5 working days**, this is shown in Figure 5.38, below. One in five (19%) were unable to name a sum they felt was 'reasonable'. A further three in five (62%) said they would not be willing to pay anything. However there was some willingness to pay (at a variety of different price points), and the full breakdown is in the table below. The mean was £65.

More (36%) were able to provide a sum they would consider 'reasonable' for a **premium service**, however the remainder could not provide a sum (22% stating 'don't know') or did not want to pay for it (42% stating 'nothing'). The proportion of Ethernet leased line users that were willing to pay at specific levels is broken down in Figure 5.39, below. The mean average amount was £277.

**Figure 5.38 Amount 'reasonable' to pay for confirmation of installation date in 5 working days / 'Premium Service'**

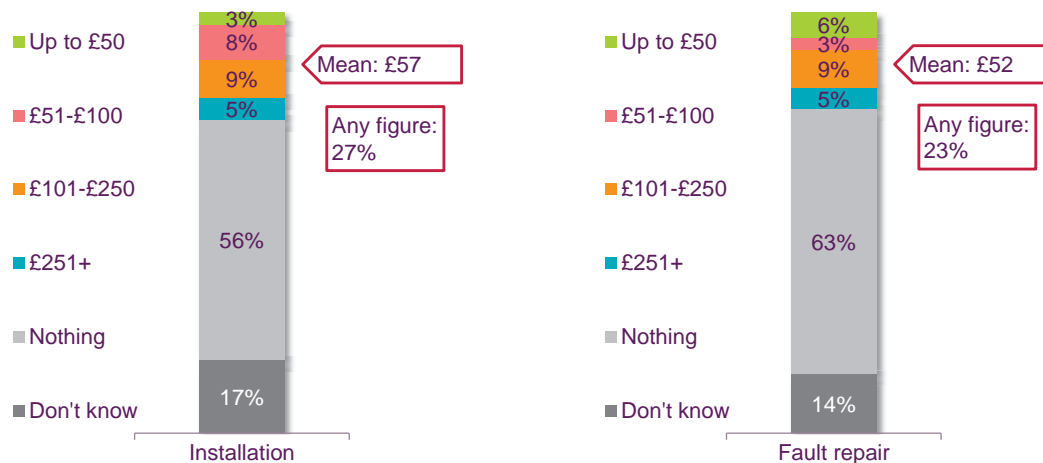


Base: Total (n=450)

Source: Q12Ai. An engineer needs to visit your business in order for an Ethernet leased line service to be installed, and you are arranging an appointment for an initial survey. How much do you think would be 'reasonable' to pay to receive confirmation of the installation date within 5 working days? Q13. Thinking now about if your communications provider offered a 'premium' service for an Ethernet leased line installation: This could be where you paid more than for the standard service but were provided a dedicated project manager who liaised with you on a regular basis. It could also increase the chance of the agreed installation completion date being met.

Around one in four named a sum they would consider 'reasonable' to pay for an installation appointment (27%) or a repair appointment **that was sooner than initially offered** (23%). However, the majority advised they would not pay anything (56% installation, 63% fault repair), with a further proportion (17% installation, 14% repair) unable to name a sum. For both services, the mean amount provided was just over £50 (£57 installation, £52 fault repair), with a small minority (5% for each) naming a figure of more than £251. More detail is shown in figure 5.39.

**Figure 5.39 Amount 'reasonable' to pay for appointment sooner than initially offered**



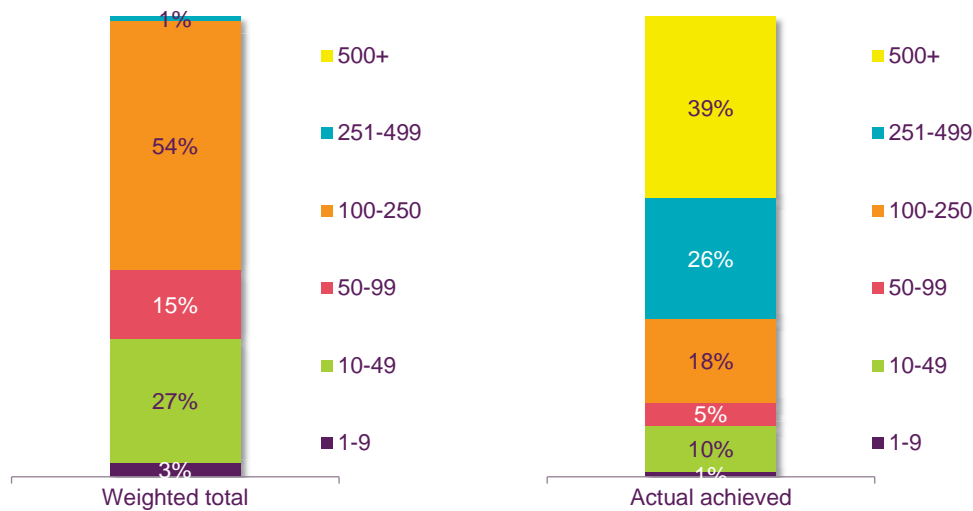
Base: Total (n=450)

Source: Q12Aii. An engineer needs to visit your business in order for an Ethernet leased line service to be installed, and you are arranging an appointment. How much do you think would be 'reasonable' to pay for an installation appointment sooner than the one you are initially offered? / Q12Aiii. This time you are arranging for a fault to be repaired on your business's Ethernet leased line service, and you are arranging an appointment. How much do you think would be 'reasonable' to pay for a repair appointment sooner than the one you are initially offered?

## 6. Sample profile

Figure 6.1 below shows the difference between the research sample interviewed and the proportions that are reflected in the weighted sample reported. The weighting and sample were designed to provide an overall representative measure of UK organisations using Ethernet leased lines but also to allow analysis by organisation size. This is described in more detail in section 3.

**Figure 6.1 Number of employees**

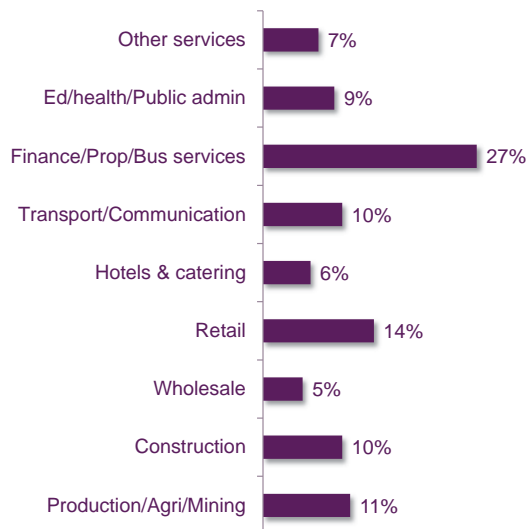


Base: Total (n=450)

Source: Q2a/b. How many employees (including yourself) are there in the company in the UK, including both full and part time workers

A spread of interviews by sector was achieved, with the largest proportion falling into 'Finance/property/ business services' (27%).

**Figure 6.2 Sector**

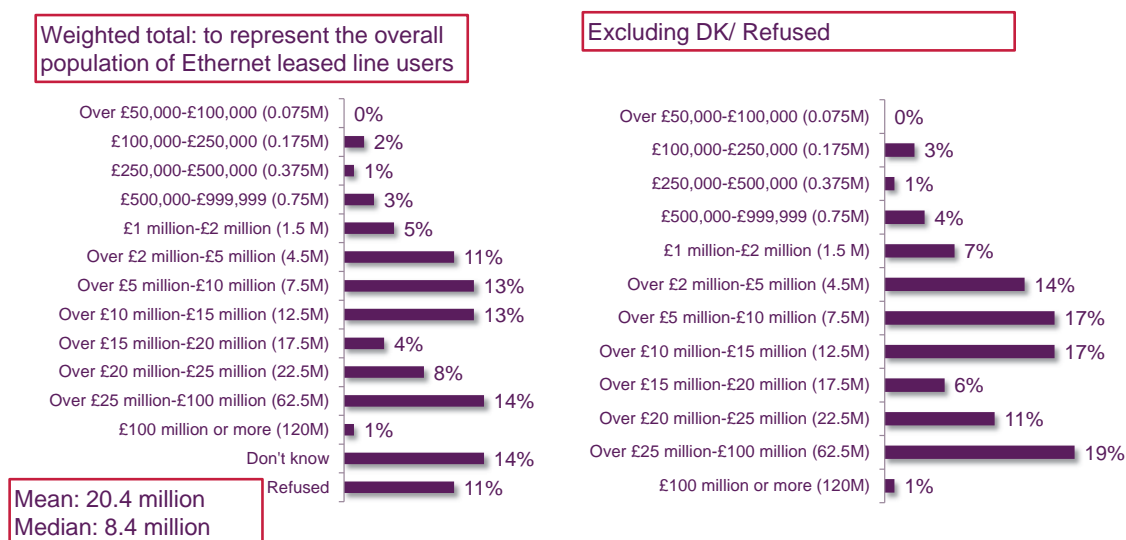


Base: Total (n=450)

Source: Sample

The mean turnover in the weighted sample was 20.4 million. However, the median suggests an average of 8.4 million as there were a small proportion of organisations included in the weighted sample with extremely large turnovers (100 million or more). Well over one in ten of the sample (14%) reported a turnover of over £25 to £100 million.

**Figure 6.3 Turnover**

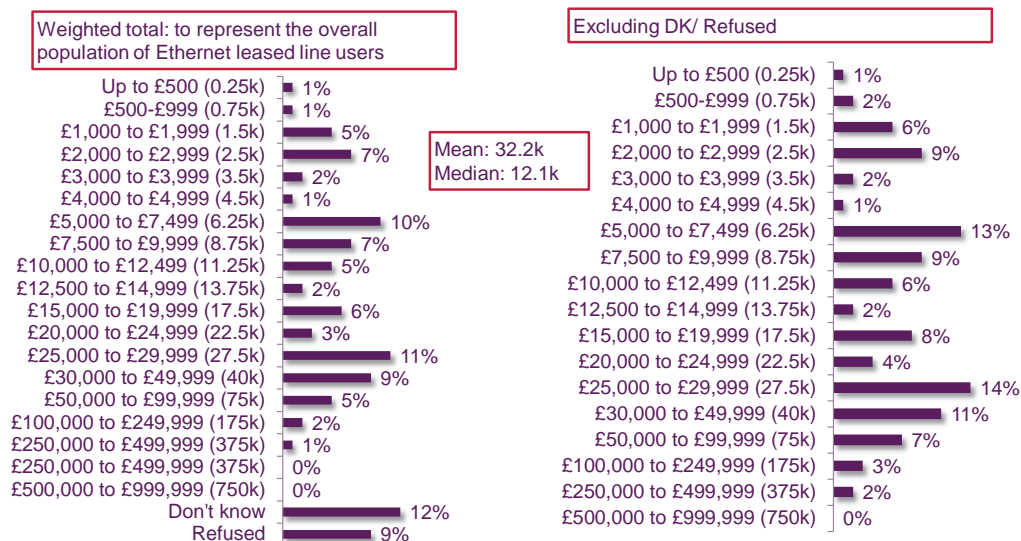


Base: Total (n=450)

Source: Q28 What is your company's UK turnover?

Reported telecoms spend by organisations in the weighted sample ranged from up to £500 to over £250,000. The mean was £32,200 and the median £12,100 which as an average excludes the impact of a small minority with very large spends. Not all were able to name their spend (12%) and some refused to do so (9%).

**Figure 6.4 Telecoms spend**



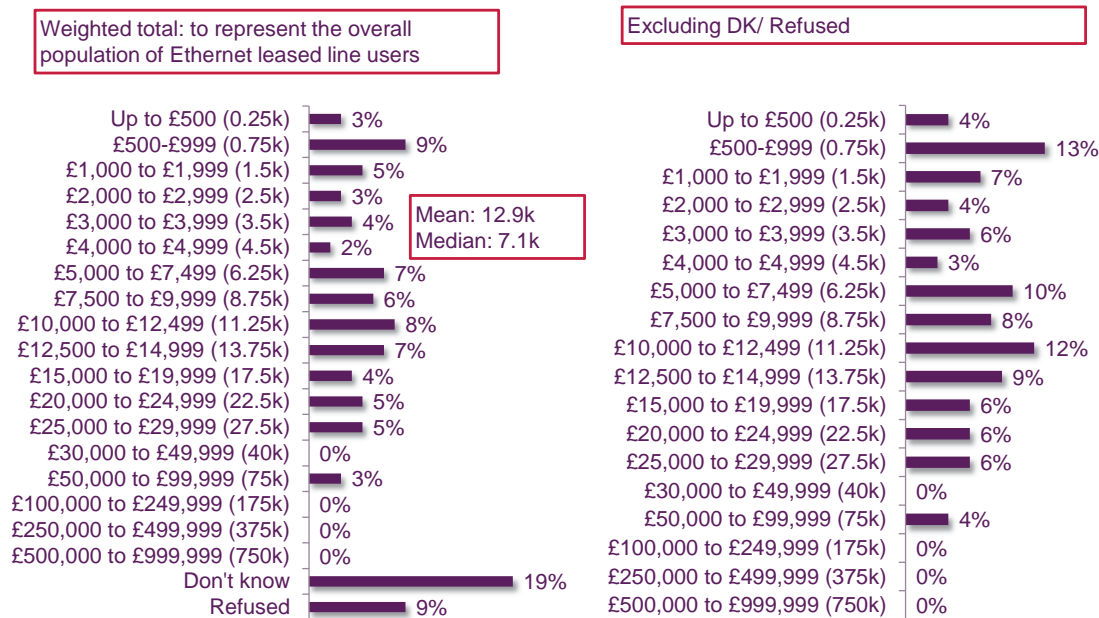
Base: Total (n=450)

Source: Q29 What is your businesses annual telecoms spend fall? Is it...?



The average spend on fibre based Ethernet digital leased lines in the weighted sample was £12,900 (mean) and £7,100 (median). However some respondents named figures considerably above this, with 4% in the £50,000 to £99,999 band.

**Figure 6.5 Spend on fibre based Ethernet digital leased lines**

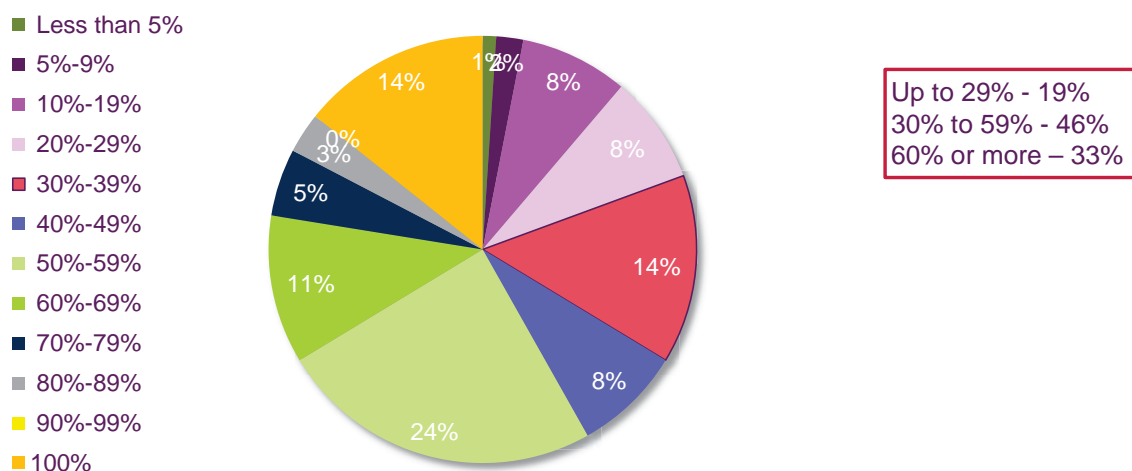


Base: Total (n=450)

Source: Q30 And how much of this annual telecoms spend is on fibre based Ethernet digital leased lines...?

A fifth (19%) of Ethernet leased line users spend up to 29% of their telecoms spend on fibre based Ethernet leased lines. For 46% this is 30% to 59% of their telecoms spend and for a third Ethernet leased lines account for 60% or more of their spend.

**Figure 6.6 Proportion of spend on fibre based Ethernet leased lines**

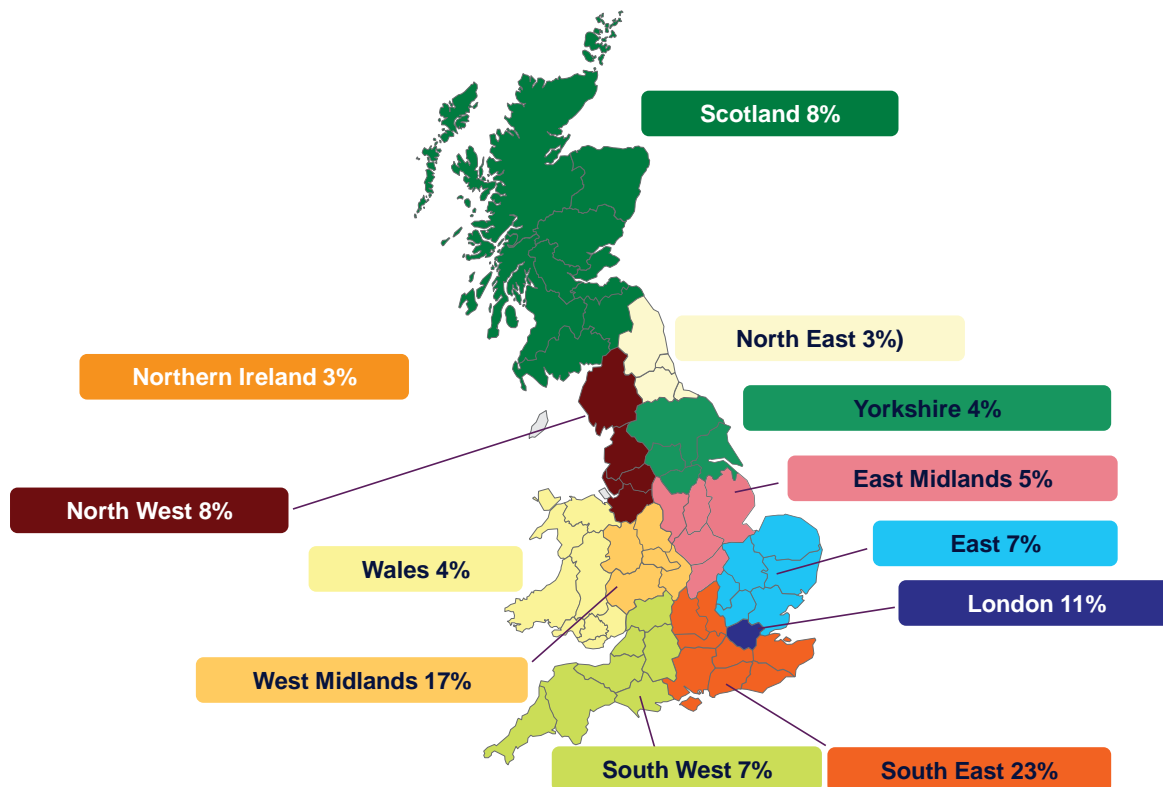


Base: Total (n=450)

Source: Q30/29 And how much of this annual telecoms spend is on fibre based Ethernet digital leased lines...?

A spread of interviews across the UK was achieved.

**Figure 6.7 Region**



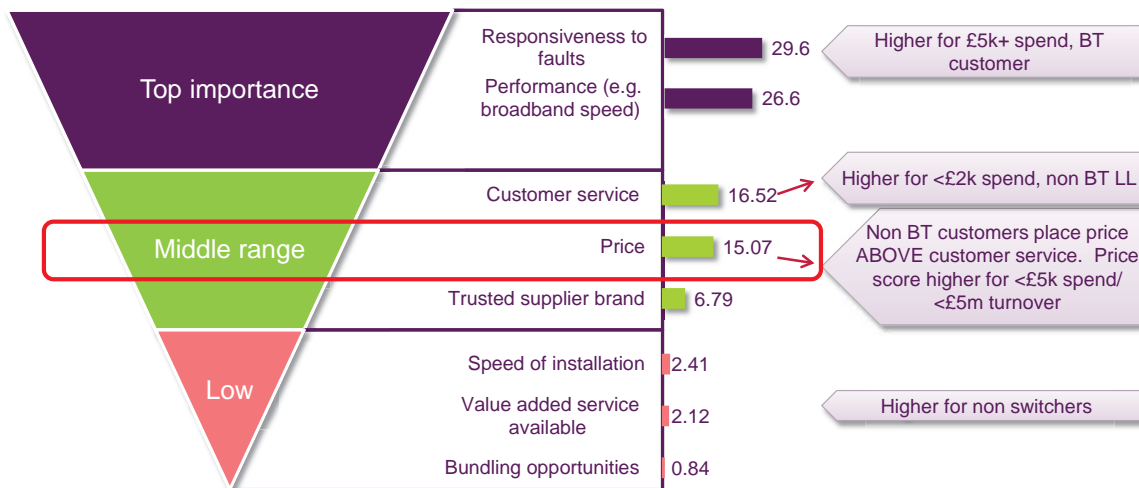
Base: Total (n=450)

Source: Sample

## 7. Appendix

### A. 2013 fixed line telephony quality of service research amongst small and medium enterprises

Figure A.1 Relative importance of service features when selecting a provider



Base: Total (n=500)

Source: QoS 2013 Q1A When selecting your communications provider for your business we would like to know what factors are important to you. I am going to read out some different pairs of items. For each pair, please tell me which item is the most important to you when choosing between communications providers. In conducting this exercise, please assume that you do have a choice between at least two different providers?

## B. Questionnaire

**FIELD DATES: TBC**

**BRIEFING NOTE TO INTERVIEWERS ON DESIRED RESPONDENT:**

We are keen to speak to the person in the organisation who has decision-making responsibility in relation their leased lines.

In larger companies that have an IT function, we expect this person to be the most senior in that department, the IT Director or equivalent. In smaller companies where there is no dedicated IT function, we would expect to talk to the Owner or Managing Director in most instances.

We do not want to talk to the person that simply signs off budgets. We want to speak to the person who is either solely or jointly responsible for deciding with their leased lines and suppliers.

We do not want to talk to an administrator. In cases where there is a parent company and separate sub divisions/brands where autonomous decisions are made, we want to talk to the company making the majority of the decisions. Therefore if the parent company only sets the broad policy and individual sub brands are fairly autonomous in terms of implementation and decision making we want to treat each sub brand as a separate company/interview in the research. However, where the parent company largely dictates decision making, they should be treated as the 'major interview' and then the sub companies can be used to 'fill in gaps' in much the same way as we would do with individuals within any one company.

We are also contacting some government departments and other public sector organisations. When contacting departments it is important that they are not referred to as 'companies' but 'departments' and that it is made clear to the officials that we are conducting the research in order to fulfil our statutory duties, that any other public sector organisations are similarly not referred to as 'companies' but 'organisations'.

In some organisations the IT function may be contracted out to a third party, in which case we want to speak to the person that manages these arrangements.

**N.B. IT may sometimes be referred to as ICT.**

**AT RECEPTION:**

Please could I speak to the person who has responsibility (sole or joint) for decision-making around IT, telecoms and other communications services and suppliers? If you have a dedicated IT Manager or Director please could we speak to them?

**INTRODUCTION:**

Hello my name is ..... from BDRC Continental, calling on behalf of Ofcom the independent regulator for the UK's communications industries.

Ofcom wishes to better understand business's and organisations' opinion on the quality of service they receive from their fixed line telephone providers. May I ask you some questions? IF NECESSARY: The interview will take around 20 minutes.

BDRC Continental is a member of the Market Research Society and a bona fide and independent market research company. Any opinions you express during this interview will remain confidential and will not be attributed to you directly.

(Central Government Departments only) Ofcom is conducting this research as part of its statutory duties under the requirements laid out in the 2003 Communications Act.

Before I start the interview can I just check that you are one of the people in your company who makes decisions at a senior level about the telephone and IT services at your company?

IF YES, CONTINUE INTERVIEW. IF NO, ASK TO SPEAK TO SOMEONE WHO IS.

IF RESPONDENT QUERIES CALL AS THEY ARE TPS REGISTERED, PLEASE READ OUT:

*"I am calling on behalf of Ofcom the regulatory body for the communications industry, this is a market research call - not a marketing or sales call. We are keen to hear your views on an important issue in the communications sector and need to speak to as many people as possible, including those who have opted out of marketing calls via the Telephone Preference Scheme. Registering for the Telephone Preference Scheme means that you should receive fewer marketing and sales calls, but it does not apply to market research calls"*

*Should you wish to verify this information I can provide you with both the name and number of the executive in charge of this survey or alternatively you can ring 0500 39 69 99 and be put through to FREEPHONE MARKET RESEARCH SOCIETY who will also be able to confirm our status as a legitimate Market Research Agency.*

---

#### QUALIFICATION FOR INTERVIEW

All respondents must have an Ethernet leased line (see below)

Respondent must be telephone and IT service decision maker

#### QUOTAS:

1. REGION/ COUNTRY (FROM SAMPLE)
2. SIZE (BY EMPLOYEES) (FROM QUESTIONNAIRE BUT SAMPLE WILL BE FLAGGED)
3. SECTOR (FROM SAMPLE)

#### REGION: CODE FROM SAMPLE

Scotland	1
Wales	2
England	3
NE	4
NW	5
Yorkshire	6
EM	7
WM	8
East	9
London	10 Change to London (inside M25)
SE	11 Change to South East (outside M25)
SW	12
North Wales	13

---

**\*QUOTAS APPLY\***

## SECTION 1: SCREENING AND QUOTAS

### QS1ai ASK ALL

Thinking about your company's current telecoms provision for voice and data connectivity, do you use any leased lines?

Yes .....1  
No .....2  
Don't know .....3

### QS1aii ASK ALL

And do you have a Virtual Private Network (VPN) that is mainly underpinned by leased lines?

Yes .....1  
No .....2  
Don't know .....3

### QS1b ASK ALL CODING YES OR DK AT QS1ai (CODES 1 OR 3)

What types of leased lines or other business connectivity services do you have?

READ OUT MULTICODE.

IF RESPONDENT SAYS THEY HAVE AN ETHERNET SERVICE BUT IS NOT SURE WHICH TYPE, ASK FOR THEIR BANDWIDTH. IF EQUAL TO OR GREATER THAN 100Mbit/s, THEN SELECT ETHERNET DIGITAL LEASED LINES (CODE 3), IF LESS THAN 100Mbit/s, CODE NEITHER 3 NOR 4

Analogue Leased Lines .....1  
SDH or PDH digital Leased Lines (SDH or PDH - time division multiplexed digital leased line)2  
**Ethernet digital Leased Lines (fibre based Ethernet - packet multiplexed digital leased line)**  
*By a fibre Ethernet service we mean a symmetrical Ethernet service offering private connection between two locations and having the same speed in both directions, rather than a fibre broadband connection typically used for internet access that has a higher download speed than upload speed* .....3  
Ethernet First Mile (EFM) (Ethernet service provided over the copper access network)....4  
ATM (a switching technique for telecommunications networks) .....5  
Frame Relay (protocol standard for LAN networking) .....6  
Wave Division Multiplexed services (WDM) (offers very high bandwidth connectivity)....7  
Storage access networks (SAN) services, e.g. Fibre channel, FICON, ESCON (provides access to consolidated, block level storage) .....8  
Satellite links.....9  
Other (specify) .....10  
Don't know .....11

---

**QS1c ASK ALL WITH VPN, MAINLY UNDERPINNED BY LEASED LINES OR DK AT QS1aii (CODES 1 OR 3)**  
**What types of leased lines or other business connectivity services do you have underpinning your VPN?**

READ OUT MULTICODE.

IF RESPONDENT SAYS THEY HAVE AN ETHERNET SERVICE BUT IS NOT SURE WHICH TYPE, ASK FOR THEIR BANDWIDTH. IF EQUAL TO OR GREATER THAN 100Mbit/s, THEN SELECT ETHERNET DIGITAL LEASED LINES (CODE 3), IF LESS THAN 100Mbit/s, CODE NEITHER 3 NOR 4

Analogue Leased Lines .....	1
SDH or PDH digital Leased Lines (SDH or PDH - time division multiplexed digital leased line) .....	2
<b>Ethernet digital Leased Lines (fibre based Ethernet - packet multiplexed digital leased line)</b>	
<i>By a fibre Ethernet service we mean a symmetrical Ethernet service offering private connection between two locations and having the same speed in both directions, rather than a fibre broadband connection typically used for internet access that has a higher download speed than upload speed .....</i>	<b>3</b>
Ethernet First Mile (EFM) (Ethernet service provided over the copper access network)....	4
ATM (a switching technique for telecommunications networks) .....	5
Frame Relay (protocol standard for LAN networking) .....	6
Wave division multiplexed services (offers very high bandwidth connectivity).....	7
Storage access networks (SAN) services, e.g. Fibre channel, FICON, ESCON (provides access to consolidated, block level storage) .....	8
Satellite links.....	9
Other (specify) .....	10
Don't know .....	11

CONTINUE IF CODED 3 AT QS1b or QS1c.

---

**QS1d Throughout this survey we will be asking you questions related to your telecoms provision. Please base your answers on the services that you receive through your fibre based Ethernet leased line based in the UK and not any other telecoms provision that you may have.**

**Just to recap, your Ethernet leased line is a fibre based digital leased line service that uses the Ethernet protocol.**

***By a fibre Ethernet service we mean a symmetrical Ethernet service offering private connection between two locations and having the same speed in both directions, rather than a fibre broadband connection typically used for internet access that has a higher download speed than upload speed***

Continue .....	1
Close – do not have an Ethernet leased line .....	2

---



**Q2a. \*QUOTAS APPLY\*** How many employees (including yourself) are there in the company in the UK, including both full and part time workers?

TYPE IN NUMBER – IF DON'T KNOW, ASK FOR BEST ESTIMATE

---

(DO NOT READ OUT) Don't know .....Y

---

**Q2b \*QUOTAS APPLY\* ASK ALL WHO DON'T KNOW NUMBER OF EMPLOYEES AT Q1, OTHERS GO TO B3**

Approximately, would you say...?

READ OUT, SINGLE CODE

1 (SOLE TRADER).....	1
2.....	2
3-5.....	3
6-9.....	4
10-19.....	5
20-29.....	6
30-39.....	7
40-49.....	8
50-99.....	9
100-250.....	10
251-499.....	11
500-999.....	12
1,000 or more.....	13
(DO NOT READ OUT) Don't know .....	Y CLOSE

---

### Q3 What is your job title?

DO NOT READ OUT, BUT PROMPT IF NECESSARY

Owner/Proprietor.....	1
Managing Director/MD .....	2
Financial Director/FD/Financial Controller.....	3
Chairman/CEO .....	4
Company Secretary .....	5
Chief Accountant.....	6
Accountant/Accounts Manager .....	7
Other Director .....	8
Other Financial Manager.....	9
Credit Controller.....	10
Telecoms/ IT Director .....	11
Telecoms/ IT Manager.....	12
Other (SPECIFY) .....	11
(DO NOT READ OUT) Don't know .....	Y

---

### Q4 CODE FROM SAMPLE, DO NOT ASK

Production/Agri/Mining	1
Construction	2
Wholesale	3
Retail	4
Hotels & catering	5
Transport/Communication	6
Finance/Prop/Bus services	7
Ed/health/Public admin	8
Other services	9

DP: QUOTAS APPLY FOR:

- MANUFACTURING/ DISTRIBUTION (CODES 1, 2,6)
- SERVICES (7, 9, 5)
- WHOLESALE/ RETAIL (3,4)
- PUBLIC SECTOR/ GOVERNMENT (8)

---

## SECTION 2: PROVIDER

---

**P1. Which company/ companies does your business use for its Ethernet leased line services? DO NOT PROMPT BUT PROBE FULLY**

**(MULTICODE)**

Accenture	MLL Telecom
Alcatel	MS3
Alternative Networks	Neos
AT&T	O2 / BE
BT	OBS / Orange Business Services
Cable and Wireless / C&W (INCLUDE IN NET WITH VODAFONE IN TABLES)	Opal Communications/Pipex
CapGemini	Orange (INCLUDE IN NET WITH OBS IN TABLES)
Carphone Warehouse	Primus
Chess	Sky
City Fibre	Spitfire
Claranet	Surf Telecoms
Colt	Talk Talk
CSC	Telefonica (INCLUDE IN NET WITH O2 / BE IN TABLES)
Daisy	Timico
Demon	Tiscali
DST (Directsave.com)	Titan
Easynet	T-Mobile
Eclipse	Tooway
EDS	Updata
EU networks	Vaioni
Everything Everywhere/EE	Verizon
Excel	Virgin Media (NTL/ Telewest)
Exponential-e	Vodafone
Fibre Speed	Vtesse
Fujitsu	Welcome Telecom

Gamma	Zayo
Geo Networks	2E2
Global Crossing	"3"
IBM	Resourced internally
Intechnology	Other (Specify)
Inter route	Other (2ND other mention ONLY)
Janet	Other (3RD other mention ONLY)
KCom (Kingston Communications)	(Don't know)
Level 3	

**P1a. And do you know who is the ultimate provider of the underlying connection for your business's Ethernet leased line services? DO NOT PROMPT BUT PROBE FULLY**

**(MULTICODE)**

BT.....1  
Openreach.....2  
BT Openreach.....3  
Other (CODE TO LIST AT QP1b) .....11  
(DO NOT READ OUT) Don't know .....Y

**P1b. INTERVIEWER: CODE ANY OTHER MENTIONS AT P1A AGAINST THIS LIST  
DO NOT PROMPT BUT PROBE FULLY. (MULTICODE)**

Accenture	MLL Telecom
Alcatel	MS3
Alternative Networks	Neos
AT&T	O2 / BE
BT	OBS / Orange Business Services
Cable and Wireless / C&W (INCLUDE IN NET WITH VODAFONE IN TABLES)	Opal Communications/Pipex
CapGemini	Orange (INCLUDE IN NET WITH OBS IN TABLES)
Carphone Warehouse	Primus
Chess	Sky
City Fibre	Spitfire
Claranet	Surf Telecoms
Colt	Talk Talk
CSC	Telefonica (INCLUDE IN NET WITH O2 / BE IN TABLES)

Daisy	Timico
Demon	Tiscali
DST (Directsave.com)	Titan
Easynet	T-Mobile
Eclipse	Tooway
EDS	Updata
EU networks	Vaioni
Everything Everywhere/EE	Verizon
Excel	Virgin Media (NTL/ Telewest)
Exponential-e	Vodafone
Fibre Speed	Vtesse
Fujitsu	Welcome Telecom
Gamma	Zayo
Geo Networks	2E2
Global Crossing	"3"
IBM	Resourced internally
Intechnology	Other (Specify)
Inter route	Other (2ND other mention ONLY)
Janet	Other (3RD other mention ONLY)
KCom (Kingston Communications)	(Don't know)
Level 3	

## P2 ASK ALL

Have you ever changed (any of) the company(s) which provides your Ethernet leased line? **IF YES ASK** When was this? **IF NECESSARY** Was it in the last 12 months, 1-3 years ago, 4-7 years ago or more than 7 years ago? **SINGLE CODE**

Yes - in the last 12 months .....1  
Yes - 1-3 years ago.....2  
Yes - 4-7 years ago.....3  
Yes - more than 7 years ago .....4  
No - never changed supplier .....5  
Don't know .....6

**SECTION 2:**  
**WHAT CONSTITUTES GOOD SERVICE**

---

**Q1A** When selecting your communications provider for your business's **Ethernet leased lines**; we would like to know what factors are important to you. I am going to read out some different pairs of items. For each pair, please tell me which item is the most important to you when choosing between communications providers. In conducting this exercise, please assume that you do have a choice between at least two different providers.

READ OUT EACH PAIR ("....or...."), THEN ASK: Which of these two is most important to you?

Price

1

Performance – speed/bandwidth

2

\*NEW\* Performance – reliability

3

Value added service available

4

Customer service (i.e. front line response to queries and issues)

5

\*NEW\* Project management (support and information on installations and other service provision)

6

Responsiveness to faults

7

Speed of installation

8

\*NEW\* Fixed price up front for installation

9

\*NEW\* Confidence that installation completion date will be met

10

Trusted supplier brand

11

---

I am now going to ask your opinion in a range of scenarios regarding installation and fault handling on your **Ethernet leased line**. **It does not matter** if you have not had any experience in these situations before. Please answer *as if you were* in the scenario presented to you.

I would also like to add that it is absolutely vital here to understand your honest opinion so that we have an accurate view on the current market.

**DP: ROTATE ORDER OF QUESTION PAIRS 1,2 / 3,4/ 5,6**

---

**Q1 ASK ALL**

You call a communications provider to place an order for a new **Ethernet leased line for your business**. How long do you think is **reasonable** for the maximum wait until the service is activated? **'Reasonable'** does not have to mean your 'ideal' situation, but one that would be generally satisfactory to you. Please give your answer in terms of **working days**.

**Q2 ASK ALL**

And how long would you **expect it** to take? Your expectation does not necessarily have to reflect your 'ideal' or 'satisfactory' situation, but the time that you feel you **would be likely** to be offered in these circumstances. Please give your answer in terms of **working days**.

	Reasonable (Q1)	Expect (Q2)
Type in (NUMBER ONLY)		

---

**Q3,4 HAVE BEEN REMOVED**

**Q5 ASK ALL**

**Your business's Ethernet leased line** has **stopped working** and you have called your communications provider to fix the problem. How long do you think is **reasonable** for the maximum wait until the service is active again? **'Reasonable'** does not have to mean your 'ideal' situation, but one that would be generally satisfactory to you. Please give your answer in terms of **hours**.

**Q6 ASK ALL**

And how long would you **expect it** to take? Your expectation does not necessarily have to reflect your 'ideal' or 'satisfactory' situation, but the time that you feel you **would be likely** to be offered in these circumstances. Please give your answer in terms of **hours**.

	Reasonable (Q1)	Expect (Q2)
Type in (NUMBER ONLY)		

---



---

## CONJOINT QUESTION TO MEASURE THE TRADE OFF FOR OPENREACH SERVICE FOR INSTALLATION

- Areas to be measured, which are positioned in Q7A:

### A Confirmation of service activation date

*1 within 2 weeks*

*2 within 3 weeks*

### B When service will be activated

*1 in 20 working days*

*2 in 30 working days*

*3 in 50 working days*

### C Updates

*1 you are updated at regular intervals on the progress of the installation*

*2 you have to chase for information about the progress of the installation*

### D Service activated on scheduled date

*1 service is activated as scheduled*

*2 service is not activated until a later date than originally provided*

### E If a key milestone other than activation is missed

*1 it's provided within 1 week of agreed date*

*2 it's not provided until over 2 weeks after agreed date*

- Different options slot into the scenario as indicated by the colour coding.
- Respondent asked 4 scenarios in rotation (Q7A-C), with different combinations of metrics ABCDE
- The output would be relative impacts of all the levels in the mini conjoint, so it would be possible to assess if consumers would rather have a sooner appointment or an appointment with a specified timeslot. It could also generate more complicated combinations of scenarios which have been traded off through the process

---

## Q7A ASK ALL

I am going to outline another scenario to you, please imagine it applies to your business. You may want to note down the different elements of the scenario if you have a pen and paper to hand.

You want to get a new **Ethernet leased line installed** and are informed that it will be necessary for an engineer to visit to complete the installation.

**DP:** ON THE 2<sup>ND</sup>-4<sup>TH</sup> ITERATIONS PLEASE EXCHANGE THE ABOVE WORDING WITH:

*FOR SECOND SCENARIO: "I'm going to read out a slightly different installation scenario..."*

*FOR THIRD SCENARIO "And now one more installation scenario (IF NECESSARY: there are 4 in total)"*

*FOR FOURTH SCENARIO "And now the last installation scenario..."*

After you submit an order for an Ethernet leased line, **the supplier contacts you within 2 weeks (a)** to offer an installation appointment date which is **50 working days (b)** after you submitted your order. You **are updated at regular intervals on the progress of the installation (c)** and **the service is not activated until a later date than originally provided (d)**. During the process, if any key milestone apart from activation is missed, **it's provided within 1 week of the agreed date (e)**.

Thinking about the entire scenario just outlined to you, how reasonable would you find this level of service?

READ OUT

Very reasonable	1
Quite reasonable	2
Only just reasonable	3
Slightly unreasonable	4
Completely unreasonable	5

---

**Q7C ASK ALL SAYING 'UNREASONABLE' AT Q7C (CODES 4/5)**

You said that this scenario was unreasonable. In the event of this scenario happening to you what action or actions, if any, would you be **likely** to take?

**DO NOT READ OUT, CODE FROM LIST BELOW, PROBE FULLY, MULTICODE**

Complain to provider.....	1
Request compensation from provider.....	2
Look into switching to an alternative provider of the same service.....	3
Would take no action	
Other (SPECIFY).....	6

**REPEAT Q7A-C SO 4 SCENARIOS ARE ASKED ABOUT IN TOTAL**

**Q7CiNEW** I am going to read you some statements people have made about the installation of Ethernet leased lines. Can you please indicate how strongly you agree or disagree with each one?

**DP ROTATE ORDER OF STATEMENTS**

	Agree strongly	Agree slightly	Neither agree nor disagree	Disagree slightly	Disagree strongly
I would rather wait longer for my installation appointment if it meant greater confidence that the installation completion date would be met	1	2	3	4	5
I would rather wait longer for a firm quotation than risk finding out at a later stage that costs will be higher	1	2	3	4	5
I would rather wait longer for service activation if it meant knowing actual costs at the outset	1	2	3	4	5
If there are changes to the planned installation which affect costs then these need to be communicated to me immediately	1	2	3	4	5

**Q7CiiNEW** Thinking again about a hypothetical scenario for an installation of an **Ethernet leased line**. You are quoted an initial connection charge subject to survey when you place your order. After the survey, you are informed there will be additional connection charges. What level of additional cost do you consider to be reasonable, i.e. a level that you would continue with the installation?

Firstly, if the additional cost was... was **READ OUT %** would you say it would be **READ OUT SIDE ANSWERS, ROTATE ORDER**

ALTERNATE START BETWEEN A AND D. STOP ASKING ONCE 1 IS CODED AT SIDE ANSWERS FOR D AND 5 IS CODED FOR A (30%)

And what if the additional cost was **READ OUT NEXT TIME PERIOD.. REPEAT UNTIL 1 IS CODED OR ALL TIME PERIODS ASKED ABOUT**

	A: 5% more than the estimate	B. 10% more than the estimate	C. 20% more than the estimate	D. 30% more than the estimate
--	------------------------------	-------------------------------	-------------------------------	-------------------------------

	(53)	(54)	(55)	(56)
Very reasonable	1	1	1	1
Quite reasonable	2	2	2	2
Only just reasonable	3	3	3	3
Slightly unreasonable	4	4	4	4
Completely unreasonable	5	5	5	5

**Q7D** Thinking now about if there were a fault on **your business's Ethernet leased line**. How reasonable are the following periods of **time** to wait for the fault to be fixed?

Firstly, if the wait was **READ OUT FIRST WAIT** would you say it would be **READ OUT SIDE ANSWERS, ROTATE ORDER**

ALTERNATE START BETWEEN A AND E. STOP ASKING ONCE 1 IS CODED AT SIDE ANSWERS FOR E AND 5 IS CODED FOR A (30%)

And what if the wait was **READ OUT NEXT TIME PERIOD.. REPEAT UNTIL 1 IS CODED OR ALL TIME PERIODS ASKED ABOUT**

	A: 2 hours	B. 5 hours	C. 10 hours	D. 24 hours	E. 48 hours
	(53)	(54)	(55)	(56)	
Very reasonable	1	1	1	1	
Quite reasonable	2	2	2	2	
Only just reasonable	3	3	3	3	
Slightly unreasonable	4	4	4	4	
Completely unreasonable	5	5	5	5	

### SECTION 3: REACTION TO POOR SERVICE

**Q8**

Thinking about your Ethernet leased line and the services it provides, how much does your business rely on it. Would you say that...

**READ OUT, SINGLE CODE**

My business would struggle to function without it	1
My business could manage but only for a limited period without it	2
My business would rather the service was available but could manage without it	3
My business would not find day to day activity impeded without this service	4

**Q9a** In the event that a fault repair to your business's Ethernet leased line was taking longer than you felt was reasonable, what actions, if any would you take?

**DO NOT READ OUT, CODE FROM LIST BELOW, PROBE FULLY, MULTICODE**

Complain to provider.....	1
Request compensation from provider.....	2
Look into switching to an alternative provider of the same service.....	3
Switch to a backup circuit or another service as a temporary measure.....	4
Look to switching to an alternative service (e.g. Cable (Virgin Media)) .....	5
Would take no action	
Other (SPECIFY).....	6

---

**Q9b ASK ALL WHO WOULD CONSIDER SWITCHING AT 7C (CODES 3), OTHERS GO TO SECTION 4**

How long would you wait for an **Ethernet leased line installation for your business** before you considered switching to an alternate supplier?

Please give your answer in terms of working days.

**Q9c ASK ALL WHO WOULD CONSIDER SWITCHING AT Q9A (CODES 3), OTHERS GO TO SECTION 4**

How long would you wait for a repair of your business's **Ethernet leased line** before you considered switching to an alternate supplier?

Please give your answer in terms of working days.

**WRITE IN**

Q9b	Q9c
WRITE IN	WRITE IN

Would not consider switching  
Don't know

X  
Y

---

**SECTION 4:**

**PRICING/ COMPENSATION**

---

**DP: PLEASE ASK HALF SAMPLE Q12Ai THEN Q12Aii THEN Q12Aiii AND HALF Q12Aiii THEN Q12Ai AND Q12Aii**

**Q12Ai ASK ALL**

An engineer needs to visit your business in order for an **Ethernet leased line service to be installed**, and you are arranging an appointment for an initial survey.

How much do you think would be **reasonable to** pay to receive confirmation of the installation date within 5 working days?

**WRITE IN**

INTERVIEWER NOTE: IF RESPONDENT THINKS THAT THEY SHOULD NOT PAY ANYTHING ADDITIONAL PLEASE TYPE IN 0

---

**Q12Aii ASK ALL**

An engineer needs to visit your business in order for an **Ethernet leased line service to be installed**, and you are arranging an appointment.

How much do you think would be **reasonable to** pay for an installation appointment sooner than the one you are initially offered?

WRITE IN

INTERVIEWER NOTE: IF RESPONDENT THINKS THAT THEY SHOULD NOT PAY ANYTHING  
ADDITIONAL PLEASE TYPE IN 0

---

**Q12Aiii ASK ALL**

This time you are arranging for a **fault to be repaired on your business's Ethernet leased line service**, and you are arranging an appointment.

How much do you think would be **reasonable to** pay for a repair appointment sooner than the one you are initially offered?

WRITE IN

INTERVIEWER NOTE: IF RESPONDENT THINKS THAT THEY SHOULD NOT PAY ANYTHING  
ADDITIONAL PLEASE TYPE IN 0

---

**Q13 ASK ALL**

Thinking now about if your communications provider offered a 'premium' service for an Ethernet leased line installation:

This could be where you paid more than for the standard service but were provided a dedicated project manager who liaised with you on a regular basis.



It could also increase the chance of the agreed installation completion date being met.

How much do you think would be **reasonable to** pay for such an additional service?

WRITE IN

INTERVIEWER NOTE: IF RESPONDENT THINKS THAT THEY SHOULD NOT PAY ANYTHING  
ADDITIONAL PLEASE TYPE IN 0

**Q15** Thinking about all the options we just discussed **with regard to your business's Ethernet leased line**, please tell me how **likely or unlikely** would you be to consider using each one? So firstly paying for (DP: use wording underlined at these questions). How likely or unlikely would you be to consider using this service?

READ OUT SCALE

DP: ROTATE ORDER OF 12AI, 12BI, 13

	Being called back with an appointment within 5 working days (Q12Ai)	Installation date sooner than originally provided (Q12Aii)	Repair date sooner than originally provided (Q12Aiii)	Premium service (Q13)
Very likely to consider	1			
Fairly likely	2			
Neither likely nor unlikely	3			
Fairly unlikely	4			
Very unlikely to consider	5			
DON'T KNOW (Do not read out)	6			

#### SECTION 5:

#### INSTALLATION/ FAULT EXPERIENCE

**INTERVIEWER NOTE – FOR Q18-Q25, IF RESPONDENT MENTIONS SAYS ANY ACTIVITY HAS OCCURRED MORE THAN ONCE, SAY: Please just think about the most recent occurrence.**

**Q18NEW** Which of the following activities concerned with your **Ethernet leased line** have been completed under your responsibility?

**READ OUT, MULTICODE**

- A new installation of the Ethernet leased line 1
- Modification of the Ethernet leased line 2
- Switching provider of the Ethernet leased line 3
- NONE OF THESE 4

**Q18aNEW** Have you ever reported a fault on your **Ethernet leased line**?

- Yes 1
- No 2
- DON'T KNOW 3

**Q18BNEW** ASK ALL WHO HAVE HAD A FAULT ON THEIR ETHERNET LEASED LINE AT Q18A

**Was the fault on your Ethernet leased line fixed under your responsibility?**

- Yes 1

No	2
DON'T KNOW	3

---

**Q19NEW      FOR EACH OF THE ABOVE ACTIVITIES CODED AT Q18 AND Q18B CODE 1, PLEASE ASK...**

How was your **Ethernet leased line INSTALLED/ MODIFIED/ SWITCHED/ FIXED?**

**READ OUT EACH ACTIVITY RESPONDENT HAS OVERSEEN AT Q18.**

**MULTI CODE**

It was done automatically/ remotely	1
An engineer came to visit	2
A new fibre connection to the premises was required	3
Additional/new equipment was required at your premises	4
Other (SPECIFY)	5

---

**Q20NEW      ASK ALL CODING 1 OR 3 AT Q18**

**When the Ethernet leased line was connected, was the provision...? READ OUT SINGLE CODE**

As scheduled	1
Initially as scheduled but there was subsequent additional work that delayed the service	2
Delayed from the outset	3
DON'T KNOW/NOT APPLICABLE	4

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**Q22NEW** ALL CODES 2 AND 3 AT Q20

How many working days after the initial date you were provided did the installation take to be successfully completed?

OPEN NUMERIC

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**Q23NEW** IF REQUIRED A FAULT REPAIR AT Q18B ASK:

**When the fault was fixed was it completed...? READ OUT SINGLE CODE**

As initially estimated/ scheduled	1
Initially as initially estimated/ scheduled but there was subsequent additional work	2
Delayed from the outset	3

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**Q25NEW** ALL CODES 2 AND 3 AT Q23

How many hours after the timescale you were provided did the repair take to be successfully completed?

OPEN NUMERIC

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**Q26NEW** Thinking now about your opinion about the reliability of your Ethernet leased line. Please indicate whether you agree or disagree with the following statements.

**READ STATEMENT, So would you say that you READ OPTIONS...**

**DP ROTATE ORDER OF STATEMENTS**

	<b>Agree strongly</b>	<b>Agree slightly</b>	<b>Neither agree nor disagree</b>	<b>Disagree slightly</b>	<b>Disagree strongly</b>
<b>I have confidence in the reliability of my Ethernet leased line service</b>					
<b>I regularly have faults on my business's Ethernet leased line</b>					
<b>I have confidence that if there is a fault on my Ethernet leased line it will be resolved quickly</b>					

## SECTION 6: FURTHER CLASSIFICATION

**Thank you, I just have a couple more questions about your company's circumstances before the interview is completed.**

Q28. What is your company's UK turnover?

ONLY PROMPT IF NECESSARY, READ OUT UNTIL CORRECT BAND REACHED – is it...

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Over £50,000 to £100,000.....	2
£100,000 to £250,000 .....	3
£250,000 to £500,000 .....	4
£500,000 to £999,999 .....	5
£1 million to £2 million.....	6
Over £2 million to £5 million.....	7
Over £5 million to £10 million .....	8
Over £10 million to £15 million .....	9
Over £15 million to £20 million .....	10
Over £20 million to £25 million .....	11
Over £25 million to £100 million.....	12
£100 million or more.....	13
(DO NOT READ OUT) Don't know .....	Y
(DO NOT READ OUT) Refused .....	R

If Don't know please ask:

Can you give your best estimate please? Just a rough guess if you don't know the exact most up to date figure is fine.

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### Q29 ASK ALL

What is your business's annual telecoms spend?

ONLY PROMPT IF NECESSARY, READ OUT UNTIL CORRECT BAND REACHED – is it....

Up to £500 .....	1
£500-999.....	2
£1000 to £1999 .....	3
£2,000 to £2999 .....	4
£3,000 to £3999 .....	5
£4,000 to £4999 .....	6
£5,000 to £7,499 .....	7
£7,500 to £9,999 .....	8
£10,000 to £12,499 .....	9
£12,500 to £14,999 .....	10
£15,000 to £19,999 .....	11
£20,000 to £24,999 .....	12
£25,000 to £29,999 .....	13
Over £30,000 (SPECIFY) .....	14
(DO NOT READ OUT) Don't know .....	Y
(DO NOT READ OUT) Refused .....	R

If Don't know please ask:

Can you give your best estimate please? Just a rough guess if you don't know the exact most up to date figure is fine.

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**Q30 ASK ALL**

And how much of this annual telecoms spend is on fibre based Ethernet digital leased lines...?

ONLY PROMPT IF NECESSARY, READ OUT UNTIL CORRECT BAND REACHED

Up to £500 .....	1
£500-999.....	2
£1000 to £1999 .....	3
£2,000 to £2999 .....	4
£3,000 to £3999 .....	5
£4,000 to £4999 .....	6
£5,000 to £7,499 .....	7
£7,500 to £9,999 .....	8
£10,000 to £12,499 .....	9
£12,500 to £14,999 .....	10
£15,000 to £19,999 .....	11
£20,000 to £24,999 .....	12
£25,000 to £29,999 .....	13
Over £30,000 (SPECIFY) .....	14
(DO NOT READ OUT) Don't know .....	Y
(DO NOT READ OUT) Refused .....	R

If Don't know please ask:

Can you give your best estimate please? Just a rough guess if you don't know the exact most up to date figure is fine.

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That's the end of the interview Mr/Mrs/Miss/Ms \_\_\_\_\_. Thank you very much for your time and help with this survey. I would just like to confirm that my name is \_\_\_\_\_ and I have been calling you from BDRC Continental in London and that all the answers you have given me will be treated in the strictest confidence. Should you wish to verify this information I can provide you with both the name and number of the executive in charge of this survey or alternatively you can ring 0500 39 69 99 and be put through to FREEPHONE MARKET RESEARCH SOCIETY who will also be able to confirm our status as a legitimate Market Research Agency.