

researchacma

Evidence
that informs

Migrating to the NBN

The experience of Australian consumers

DECEMBER 2016



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facilitating
regulating

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Overview

Key highlights

This study highlights key experiential factors influencing the consumer journey before, during and after the migration of their landline and internet services to the NBN network (NBN). Although the research focuses exclusively on the experience with fibre-to-the-premises (FTTP) connections—which has since been augmented by other technologies—the results provide a relevant picture about contemporary experiences as consumers adopt and use new communications technologies.

The research shows that most consumers were excited by the prospect of connecting to the NBN, with three-quarters of residents connecting within three months of the NBN becoming available and eight in 10 businesses doing so within six months. For the 'not-connected' consumers, the main reason given for not yet connecting was satisfaction with their current connections. Other key reasons consumers gave for delaying their connections were concerns about the hassle and cost.

Consumers with a greater understanding of the NBN connection process were more likely to connect, and they had higher levels of satisfaction with the migration experience and their NBN services once connected.

The findings also highlighted where further information and education would help consumers to have a positive service experience:

- > **How to get connected**—the steps involved in migration and clarifying the roles and responsibilities of each of the parties involved at each migration stage could better help consumers to resolve any of their identified service issues.
- > **When the NBN is available in an area**—residents and businesses who reported they 'understood the NBN connection process really well' and were looking forward to the NBN were especially likely to connect early—within the first week of the NBN becoming available in their area.
- > **The effect of connecting on landline and other services**—there was varying levels of awareness about the actions consumers needed to take to migrate their landline phone, and other services such as security or fire alarms and EFTPOS payment systems (for businesses).

The research findings also suggest that, in addition to the type of information outlined above, the consumer experience of connecting to the NBN may be enhanced by reviewing communication materials in terms of how much is provided, their relevance at the time of delivery and how easy they are to understand.

More than half of the connected consumers did not compare offers for phone and internet services, choosing largely to remain with their current service provider. The findings suggest that despite there being a lot of communication from retail service providers (RSPs), ease of understanding was low and this may be contributing to the low level of shopping around reported by consumers. For those who did compare offers, price was a key influencing factor determining choice of provider.

Once connected, most consumers reported that the costs of the NBN services were either less or comparable to prices paid prior to connecting.

There was a clear indication from the research that consumers' satisfaction levels during migration are inextricably linked to service performance.

Most consumers were satisfied (rating of five or above out of 10) with the whole process of connecting to the NBN; however, one in five residents and more than a third of businesses were dissatisfied with the process (rating of four or below out of 10). A key positive factor influencing consumers' satisfaction ratings was the absence of any service disruptions.

It was evident from the research that, for most consumers, migrating to the NBN met their expectations of having access to a faster, more reliable internet service. For connected consumers, satisfaction with internet speeds was higher than for those not connected. Nearly half of residents (48 per cent) and two-thirds of businesses (65 per cent) expected the NBN to be faster than their current service. Residents were reasonably satisfied with their fixed-internet and landline phone services since connecting to the NBN, with 33 per cent reporting that their internet was more reliable now than before and 51 per cent reporting that their internet service was comparable to their service prior to connecting. Satisfaction levels for fixed-internet services were similar for businesses but slightly lower for landline phone services. A quarter of businesses reported that their internet was more reliable now than before.

The findings suggest, however, that some consumers continued to experience concerns with service reliability, with around one in five reporting that their fixed-internet and landline phone services were less reliable now than before connecting to the NBN.

Background

The NBN is an Australia-wide project to upgrade the existing fixed-line phone and internet network. Since 2009, NBN Co Limited (NBN Co)—a wholly Australian Government-owned company—has been tasked to build, design and operate Australia's first national wholesale-only, open-access network. NBN Co's wholesale products are the basis on which RSPs then develop their NBN retail products to offer to residential and business customers.

NBN services are delivered to premises across Australia via a multi-technology mix including:

- > fibre to the premises (FTTP)
- > fibre to the node (FTTN)
- > fibre to the building (FTTB)
- > fibre to the distribution point (FTTdp)/fibre to the curb (FTTC)
- > hybrid fibre coaxial (HFC)
- > fixed wireless
- > satellite.

Due to the limited sample available for the other types of connections at the time of fieldwork (April to May 2016), this research focused exclusively on the consumer (residential and business) experience of FTTP connections. Although limited to FTTP connections, the research provides some important insights into the customer care and service issues facing consumers as they adopt and use new telecommunications technologies and services.

To better understand the experience of telecommunications consumers, it is useful to recognise that FTTP installations have different requirements to other connection technologies—for example, premises equipment that are required for FTTP installations, such as a connection box and utility box to be fixed inside and outside the premises respectively, are not required for other technologies such as FTTN.

In the context of the multi-technology mix approach to the NBN rollout, FTTP-based deployment has been surpassed by other technologies such as FTTN. According to the NBN Co [Corporate Plan 2017](#), FTTP is expected to cover 17–21 per cent of the total proportion of premises at the conclusion of the rollout, compared to 43–54 per cent for FTTN/FTTB/FTdp connections.

The installation of the infrastructure to provide the NBN to premises is being rolled out area by area—at [November 2016](#), the NBN was available to 3.2 million Australian homes and businesses. NBN Co generally declares an area to be ‘ready for service’ once at least 90 per cent of premises in its footprint in that area are passed by its fibre network. There is then an 18-month window from the ‘ready-for-service’ date until the disconnection date. During this period, all voice, broadband internet and other services that operate over-the-top of Telstra’s local access networks within NBN’s fixed-line footprint must be migrated onto services provided over the NBN if end users and businesses in that area want to retain access to fixed-line services.¹ NBN Co is a wholesale infrastructure provider, and so consumers will need to contact their preferred landline and internet service RSPs to connect their premises to the NBN.

For the purposes of this report, the term ‘connected’ will be used to define those who are in ‘ready-for-service’ areas that have connected to the NBN, and those in ‘ready-for-service’ areas who have not connected to the NBN will be described as ‘not connected’.

The avoidance of service disruption for consumers is a key goal articulated by the Australian Government through the Migration Assurance Policy Statement and Framework.² This goal is also reflected in the government’s 2016 Statement of Expectations, its key governance document for the NBN.³

¹ Department of Communications and the Arts (DoCA), [Migration Assurance Policy Statement](#), 1 February 2016, p. 2.

² DoCA, [Migration Assurance Policy Framework](#), 1 February 2016.

³ See www.nbnco.com.au/content/dam/nbnco2/documents/soe-shareholder-minister-letter.pdf, p. 2, which provides that ‘nbn together with retail service providers should work to ensure a high quality end user experience through the migration and ongoing service periods. This includes working closely with retail service providers to proactively manage any complaints’.

ACMA research program

researchacma

Our research program—researchacma—underpins the ACMA's work and decisions as an evidence-informed regulator. It contributes to the ACMA's strategic policy development, regulatory reviews and investigations, and helps staff better understand the agency's role in fulfilling its strategic intent to make media and communications work for all Australians.

researchacma has five broad areas of interest:

- > market developments
- > media content and culture
- > social and economic participation
- > citizen and consumer safeguards
- > regulatory best practice and development.

This research contributes to the ACMA's social and economic participation research theme, contributing to our activities in facilitating and regulating consumer protections for communications services.

Aim

The aim of this research was to explore the Australian consumer migration experience before, during and after migration to the NBN during the period November 2015 to May 2016.

The research focused on exploring the following:

1. How easy or difficult was it for residents and businesses to migrate to the NBN?
2. How satisfied was the consumer with the NBN migration experience?
3. What characteristics of the NBN migration experience were related to consumer satisfaction?
4. What information sources did consumers use to learn about the NBN migration process?
5. How useful were the available information sources during migration to the NBN?
6. What was the level of consumer awareness about the effect of the NBN on existing household communications services?
7. What were the motivators and barriers to early migration to the NBN?

Methodology

The ACMA commissioned Woolcott Research and Engagement (Woolcott Research) to conduct the research that comprised three parts:

1. A quantitative survey of n=900 Australian residents and n=304 businesses conducted during April to May 2016.
2. A qualitative study of Australian households in metropolitan and regional locations undertaken during the same period as the quantitative survey.
3. A communications audit.

Both the quantitative and qualitative research focused on the consumer experience with FTTP connections exclusively due to the limited sample available for the other

types of connections at the time fieldwork was conducted. An overview of each data collection phase is provided below.

Quantitative survey of residents

A total of n=900 telephone surveys was conducted with Australian residents aged 18+ who were the main or joint decision-maker for household telecommunication services. All residents interviewed were in a 'ready-for-service' area where the NBN FTTP infrastructure had been installed. The sample comprised n=500 residents 'connected' to NBN services via FTTP; n=400 residents were 'not connected'.

There was a higher proportion of residents in the older age groups, with 72 per cent aged over 55. This is not unexpected, given the interviews were conducted with the main or joint decision-maker for household telecommunications services. The use of the electronic Australian White Pages to identify telephone numbers may have also contributed to the older age skew as older people are [more likely](#) to have a listed telephone number than those in younger age groups.

Just over half the resident sample was female (51 per cent) and from a metropolitan location (57 per cent).

Quantitative survey of businesses

A total of n=304 telephone surveys conducted with business decision-makers in small (two to 19 employees) to medium (20–50 employees)-sized enterprises. The sample comprised n=154 businesses connected to NBN services via FTTP; n=150 businesses were not connected.

Just over half the business sample was male (51 per cent) and 61 per cent were from a regional location.

Qualitative research with residents

Qualitative research was conducted with household telecommunications decision-makers in metropolitan and regional locations, some of whom were connected and others who were not connected. The research included:

- > n=16 mini-group discussions/affinity group discussions
- > n=20 in-depth interviews
- > n=12 household ethnographic sessions.

For more information on the sample and methodology, see Appendix A.

Communications audit

This phase of the research required an audit of the communications material received by residents about the NBN rollout. Communication was sourced from residents within rollout areas as well as through online investigation.⁴

To accurately reflect the NBN migration experience, research findings for the quantitative, qualitative, and communications audit have been presented together. Further detail on the methodology of this research is provided in Appendix A.

⁴ NBN Co has further developed its consumer-facing communications in the time since this research was undertaken, and its current communications are likely not the same as those captured in the research.

Summary of findings

Pre-migration experience

Understanding of connection process

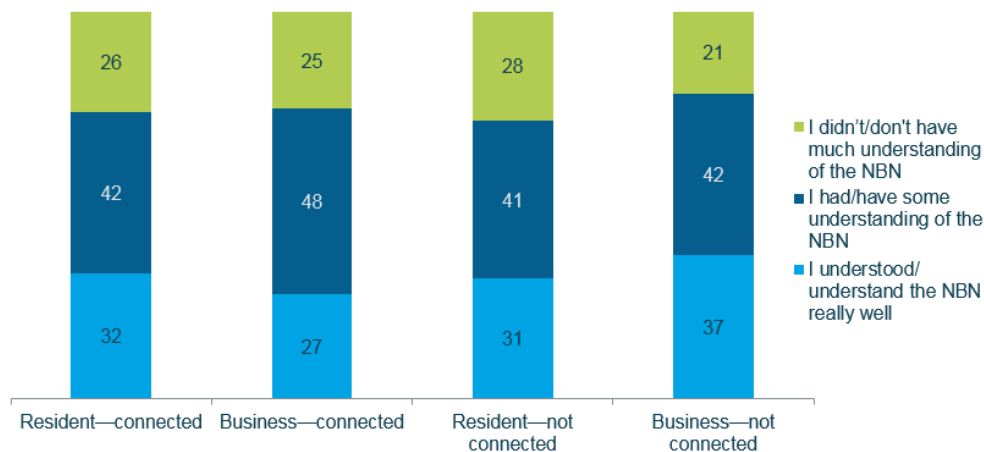
The majority of consumers understood how to get connected to the NBN.

Approximately one-third of connected and not-connected residents reported they understood the process of getting connected to the NBN really well.

Approximately 40 per cent of connected and not-connected residents had some understanding of how to go about getting connected. For businesses, 37 per cent of those not connected understood the NBN connection process really well; however, this fell to 27 per cent for those connected. Nearly half (48 per cent) of connected businesses and 42 per cent of not-connected businesses reported some understanding (Figure 1).

Approximately a quarter of connected and not-connected residents, and connected businesses had little to no understanding of how to go about getting connected to the NBN; this fell to 21 per cent for not-connected businesses (Figure 1).

Figure 1: Understanding of how to go about getting connected to the NBN



Q2. Before you started the process of connecting, how well did you feel you understood how to go about getting connected to the NBN? / Q2. How well do you feel you understand how to go about getting connected to the NBN?

Resident: Total connected n=500; not connected n=400.

Business: Total connected n=154; not connected n=150.

Findings from the qualitative research suggest there is limited understanding of the specific steps involved in the migration process and some confusion at this stage as to who will be providing different aspects of the installation service. Many participants did not know who to call if there was an issue.

While residents and businesses in 'ready-for-service' areas were clearly aware of the NBN rollout, many only became aware that the NBN was being installed when the cable-layers commenced work in their street.

Recall of communication

Most connected (80 per cent) and not-connected residents (74 per cent) recalled seeing or hearing at least some communication about the NBN coming to their area.

Around two-thirds of connected (68 per cent) and not-connected (65 per cent) businesses recalled having seen or heard communications about the NBN. Just over three-quarters (78 per cent) of connected residents and 70 per cent of not-connected residents who recalled seeing or hearing communication paid attention to what information they received about the NBN coming to their area. A similar level of attention was evident among connected businesses (71 per cent) and not-connected businesses (79 per cent).

NBN Co and Telstra were the most prominent (unprompted) sources of communication:

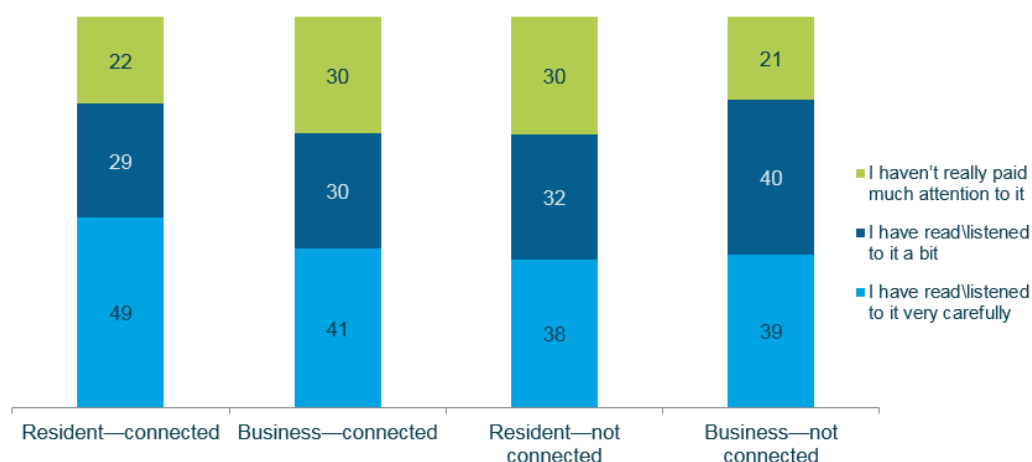
- > For residents:
 - > NBN Co—39 per cent connected; 45 per cent not connected
 - > Telstra—42 per cent connected; 41 per cent not connected.
- > For businesses:
 - > NBN Co—38 per cent connected; 39 per cent not connected
 - > Telstra—49 per cent connected; 51 per cent not connected.

NBN Co utilises a range of communication channels to convey information to the public, such as media coverage (for example, radio interviews or TV, print and online news), social media (Facebook, Twitter, LinkedIn, Instagram), and NBN Co's own website and customer contact centre.

Findings from the qualitative research suggest that relevance of the communication and the amount received are important considerations. Some consumers found the information provided at the pre-migration stage not directly relevant at that point in time or reported that there was too much information to digest. For example, the installation notice (the initial piece of communication from NBN Co prior to rollout) was not seen to be important enough for people to hold on to or read thoroughly at that particular point in time. Overall, there was a feeling of too much information too early in the process.

Just under half of residents (49 per cent) and 41 per cent of businesses who were connected claimed to have read the communication they received (see Figure 2).

Figure 2: Interest taken in communication received about the NBN coming to the area



Q11/ Q12. Overall, how much interest have you taken in this communication?

Resident: Total (Those who recall seeing/hearing any communication) Connected n=401; not connected n=297.

Business: Total (Those who recall seeing/hearing any communication) Connected n=105; not connected n=98.

Among residents, those connected were more likely to rate the communication from NBN Co as easy to understand (51 per cent rated the ease of understanding at eight or above out of 10) than were those not yet connected (36 per cent provided a rating of eight or above out of 10). For businesses connected to the NBN, 43 per cent rated the communication easy to understand.

Awareness of services affected by NBN connection

Fewer than half of not-connected residents (43 per cent) and businesses (34 per cent) in the pre-migration stage were aware of their disconnection date, and there were different levels of awareness of the effect of the move to the NBN on services.

Just over half (57 per cent) of not-connected residents were aware that landline phone services provided over the NBN depend on power at the premises; increasing to 63 per cent among not-connected businesses. Awareness of the ability to install a battery backup unit for FTTP connections in case of a power outage was similar among the two consumer groups (43 per cent not-connected residents and 42 per cent not-connected businesses).

Nearly two-thirds of not-connected residents and businesses (63 per cent) were aware that back-to-base security alarms would be affected by the move to the NBN.

However, there was a lower level of awareness among not-connected businesses of the impact on EFTPOS payment systems (45 per cent).

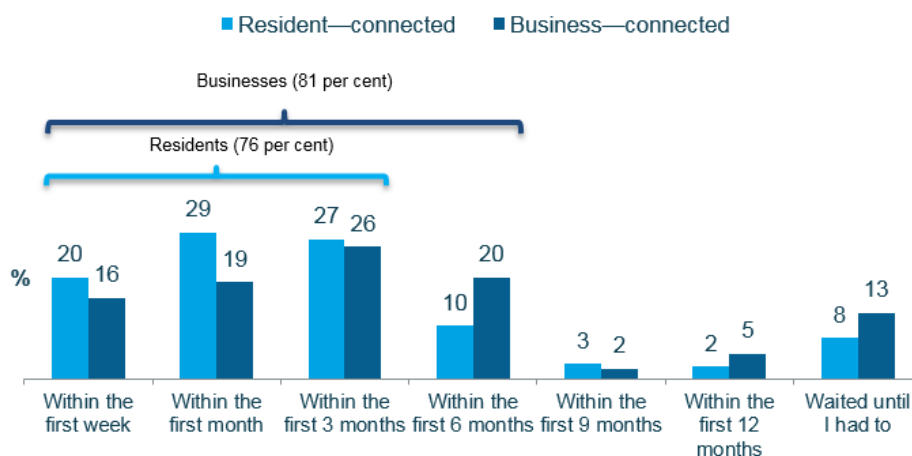
Migration experience

Time taken to connect to the NBN

The majority of those residents who had already connected to the NBN had migrated relatively early—three-quarters (76 per cent) did so within the first three months of the NBN becoming available in their area (see Figure 3). Those who reported they ‘understood the NBN connection process really well’ were more likely to connect within the first week (29 per cent), while those who had a ‘limited understanding of the NBN connection process’ were more likely than others to wait until they had to connect (15 per cent).

While businesses were less likely than residents to connect early, most had connected within the first six months of the NBN becoming available (81 per cent; see Figure 3). Those who ‘understand the NBN connection process really well’ were likely to have connected within the first month of the NBN becoming available in their area (63 per cent), while those with little understanding of the NBN connection process were more likely to wait until they had to (28 per cent).

Figure 3: Time taken to connect to the NBN once it became available



Resident: Q24. How soon did you connect to the NBN once it became available in your area? Total connected n=500.

Business: Q25. How soon did you connect to the NBN once it became available in your area? Total connected n=154.

Motivators and barriers to connecting

Findings from the qualitative research suggest that motivators for connecting to the NBN include the expectation of faster internet speeds; in particular, being able to stream or download more content, the ability to resolve previous reliability issues and general excitement for NBN services. Barriers to connecting to the NBN included the perceived cost of NBN services and associated inconveniences such as having to invest time in choosing an RSP.

Similar barriers to connecting to the NBN were also evident in the quantitative research, with not-connected residents and businesses both citing satisfaction with their current connection (residents 44 per cent; businesses 27 per cent) and the perceived inconveniences of migrating to the NBN (residents 35 per cent; businesses 19 per cent) as the top two reasons for not yet having connected to the NBN. The perceived cost of NBN services was also a key reason residents cited for not yet having connected to the NBN (30 per cent), but was not as important for business respondents.

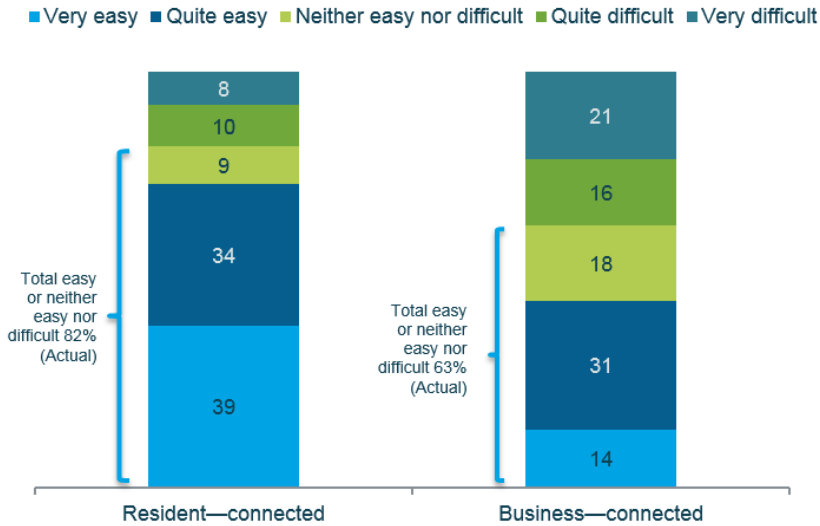
Ease of connecting to the NBN

The results show that residents found the actual connection process generally easier than anticipated. Nearly three-quarters (73 per cent) of connected residents reported that it was easy to connect and nine per cent reported that it was neither easy nor difficult (see Figure 4), whereas only half (53 per cent) of not-connected residents anticipated that it would be easy to connect and 18 per cent anticipated that it would be neither easy nor difficult (see Figure 5).

Just under half (45 per cent) of connected businesses reported that it was easy to connect and 18 per cent reported that it was neither easy nor difficult (see Figure 4),

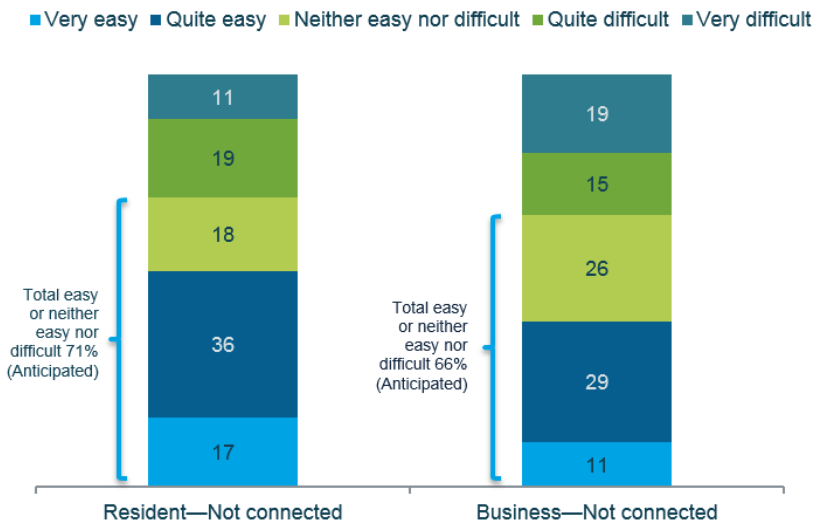
whereas 40 per cent of those not connected anticipated that it would be easy to connect and 26 per cent reported that it was neither easy nor difficult (see Figure 5).

Figure 4: Actual ease of connecting to the NBN



Resident: Q33. How easy would you say it was to connect to the NBN? Total connected n=500.
 Business: Q34. How easy would you say it was to connect to the NBN? Total connected n=154.

Figure 5: Anticipated ease of connecting to the NBN



Resident: Q26. How easy do you think it will be to connect to the NBN? Total not connected n=400.
 Business: Q27. How easy do you think it will be to connect to the NBN? Total not connected n=150.

Installation process

Nearly two-thirds (63 per cent) of connected residents rated the communication from the people who installed the cable and equipment in the premises as easy to understand (eight to 10 out of 10). Just over half (52 per cent) of businesses rated the communication as easy to understand during installation.

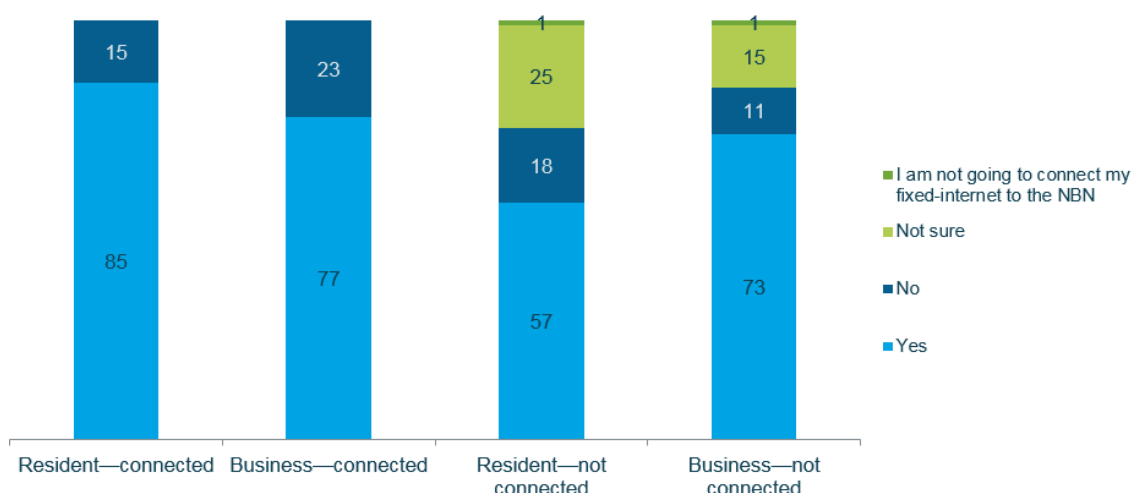
The installation process was further explored through the qualitative research, with results showing this to be a confusing part of the migration process and a key driver of dissatisfaction for some residents.

Those more dissatisfied with the installation process were unaware that providers would have to come into the house to install new equipment or that there would be boxes installed on the outside of their home. There was also a low level of awareness that there could be technical requirements that would determine how their connection could be installed. Some residents reported they were informed by technicians of the need to have both the internal and external boxes on the same wall (which is not correct). However, this requirement of having an internal and external box installed is specific to FTTP installation and is not expected to be an issue with other technologies in the multi-technology mix model.

The role of RSPs

The majority of connected residents (85 per cent) and businesses (77 per cent) chose to remain with their current fixed-internet provider when migrating to the NBN (see Figure 6). A similar result was found for landline phone services, with 87 per cent of residents and 86 per cent of businesses remaining with the same provider.

Figure 6: Remaining with existing provider when migrating to NBN fixed-internet service



Resident: Q25. Did you use the same company for your NBN fixed-internet service that you were with prior to connecting to the NBN?/ Q24. If you connect to the NBN, do you think you will use the same company for your NBN fixed-internet service that you are with currently? Total connected (those with fixed-internet connected to the NBN) n=446; Total not connected (those with fixed-internet connected) n=306.

Business: Q26. Did you use the same company for your NBN fixed-internet service that you were with prior to connecting to the NBN?/ Q25. If you connect to the NBN, do you think you will use the same company for your NBN business internet service that you are with currently? Total connected (those with fixed-internet connected to the NBN) n=146; Total not connected (those with fixed-internet connected) n=135.

The qualitative research revealed that residents were happy to stay with their provider for phone and internet services as it was easier. They also assumed that it would make the process smoother and believed they would receive benefits associated with their loyalty (for example, a new modem for free/same data and download speeds).

Fewer than half of connected residents claimed to have compared offers for either their fixed-internet (46 per cent) or landline phone (30 per cent). The qualitative research showed that residents found it difficult to compare offers from RSPs. The result was similar for businesses with 42 per cent comparing fixed-internet providers and 31 per cent comparing landline phone services.

The research further explored the key factors driving the choice of RSP for both internet and landline phone connections. Price was the most common determinant of supplier choice among connected residents for both fixed-internet (40 per cent) and landline phone (41 per cent) services, followed by the fact they were already customers and had found the RSP reliable.

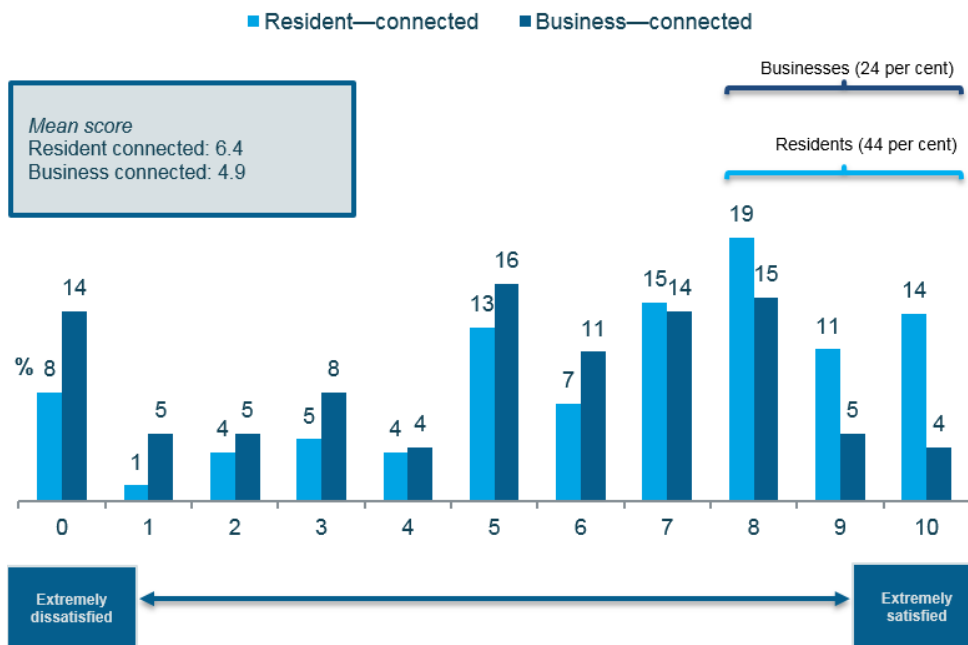
Among businesses, price was also the most common driver of RSP selection when choosing a provider for the landline phone (39 per cent) and fixed-internet (36 per cent). Reliability of service and the ease of remaining with the existing provider (who had a record of providing good service) were also drivers of choice.

Satisfaction with the connection process

Almost half of the connected residents (44 per cent) rated their satisfaction with the whole connection process at or above eight out of 10, where 10 is extremely satisfied (see Figure 7). Those who 'understand the NBN connection process really well' were most likely to be very satisfied with the whole connection process (55 per cent eight to 10 out of 10), while those with limited understanding were more likely to be dissatisfied (29 per cent zero to four out of 10).

Businesses were less satisfied than residents with the whole connection process, with 24 per cent rating their satisfaction at or above eight out of 10 (see Figure 7). On average, businesses were less satisfied with the process of connecting to the NBN from start to finish than were residents (business 4.9 out of 10, compared to residents 6.4 out of 10).

Figure 7: Satisfaction with the whole process of connecting to the NBN from start to finish



Resident: Q31. Thinking about the process of connecting to the NBN, I would like you to give a score out of 10 to indicate how satisfied you were with the whole process from start to finish, where 0 is extremely dissatisfied and 10 is extremely satisfied. Total connected n=500.

Business: Q32. Thinking about the process of connecting to the NBN, I would like you to give a score out of 10 to indicate how satisfied you were with the whole process from start to finish, where 0 is extremely dissatisfied and 10 is extremely satisfied. Total connected n=154.

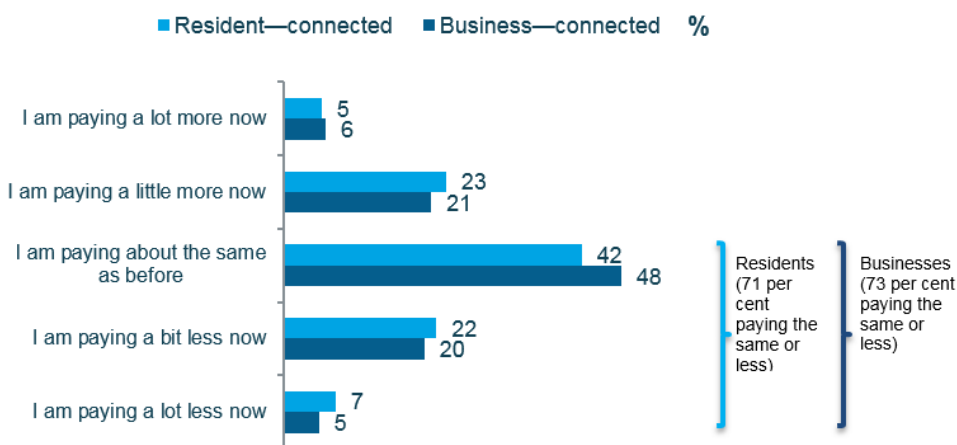
Even among connected businesses who found the process easy, only 22 per cent reported that everything went smoothly. More than two-fifths of connected businesses (43 per cent) reported experiencing NBN connection problems that affected the functioning of their business. Ongoing service issues were the most common problems experienced, with three-quarters of those who experienced problems being affected (74 per cent).

Post-migration experience

Cost of fixed-internet and landline phone services

Both residents and businesses reported that costs of the NBN were less than or comparable to those paid prior to connecting. The majority of connected residents were paying either the same or less for their fixed-internet (71 per cent) and landline phone service (84 per cent); this was similar for connected businesses (internet 73 per cent; landline phone 81 per cent) (see figures 8 and 9).

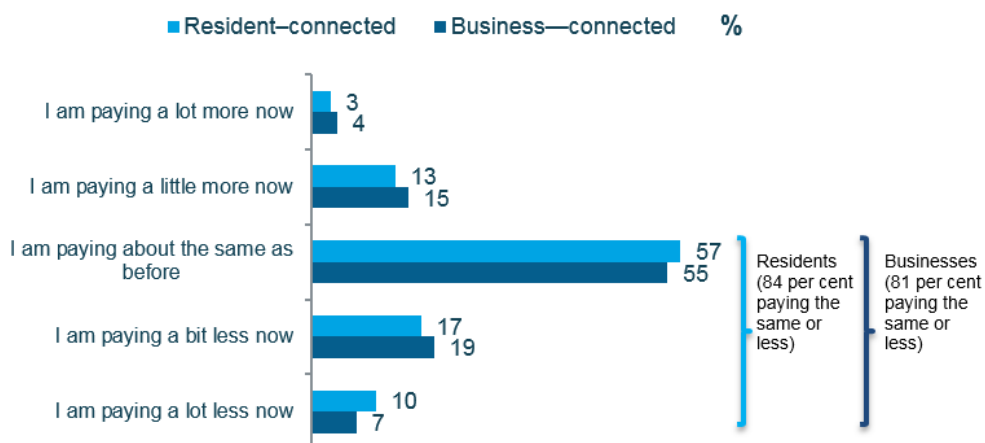
Figure 8: Comparison of NBN fixed-internet service price



Resident: Q41. How does the price of your NBN home internet service compare with the price you paid prior to connecting to the NBN? Total connected fixed-internet (those with fixed-internet connected to the NBN) n=446.

Business: Q42. How does the price of your NBN fixed-internet service compare with the price you paid prior to connecting to the NBN? Total connected fixed-internet (those with fixed-internet connected to the NBN) n=146.

Figure 9: Comparison of NBN landline phone service price



Resident: Q44. How does the price of your NBN landline phone service compare with the price you paid prior to connecting to the NBN? Total connected landline phone (those with landline phone connected to the NBN) n=454.

Business: Q45. How does the price of your NBN landline phone service compare with the price you paid prior to connecting to the NBN? Total connected landline phone (those with landline phone connected to the NBN) n=124.

Service satisfaction

The results show that post-migration satisfaction with landline phone and fixed-internet services was positive for residents and businesses.

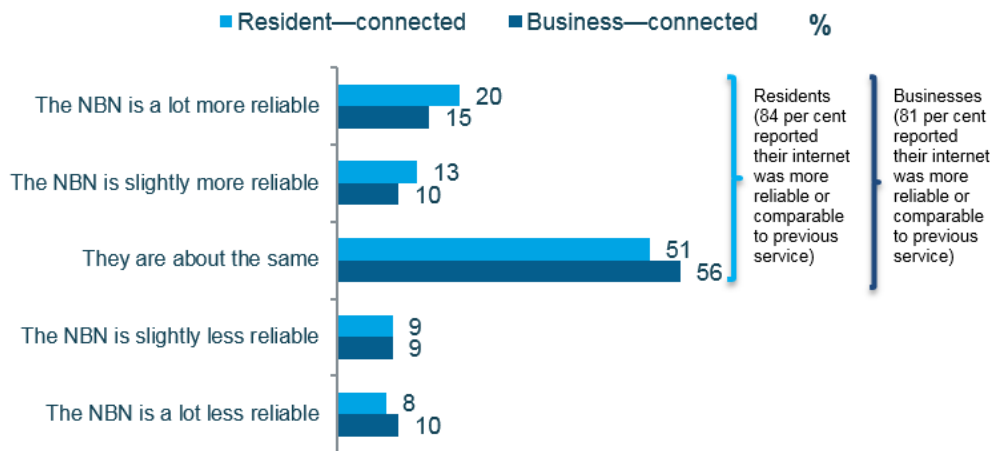
Average reported satisfaction with NBN fixed-internet services among residents was 7.4 out of 10, compared to 7.1 out of 10 among businesses. Reported satisfaction with NBN landline phone services was significantly higher among residents (7.6 out of 10) than businesses (6.6 out of 10).

The majority of connected consumers found their NBN fixed-internet service to be more reliable or comparable to their previous fixed-internet service. Eight in 10 residents (84 per cent) reported that their service was the same or more reliable than before they connected to the NBN, with similar levels of reliability evident among businesses (81 per cent reported that their fixed-internet service was the same or more reliable than before they connected to the NBN).

However, some consumers experienced some issues with internet speed and found their service did not match their pre-migration expectations. The qualitative research showed that residents were unaware that simply switching to the NBN did not guarantee high speed internet (that is, that internet speed would depend on the purchased plan), while a number of businesses complained that the service they received from providers was slow and unresponsive. Frustration was also expressed with services dropping out and other internet connection problems.

For both residents and businesses, there was some confusion as to whether the problems being experienced during connection were due to the RSP's service, NBN Co's infrastructure or their devices.

Figure 10: Comparison of NBN fixed-internet service reliability



Resident: Q42. How does the reliability of your NBN fixed-internet service compare to what you had prior to connecting to the NBN? Total connected fixed-internet (those with fixed-internet connected to the NBN) n=446.

Business: Q45. How does the reliability of your NBN fixed-internet service compare to what you had prior to connecting to the NBN? Total connected fixed-internet (those with fixed-internet connected to the NBN) n=146.

Appendix A—Methodology

Quantitative fieldwork—residents

This involved a series of n=900 computer-assisted telephone interviewing (CATI) interviews among Australian residents aged 18+ years who were the main or joint decision-maker in terms of household telecommunication connections; see tables 1 and 2 for sample distributions.

Table 1: Resident sample distribution by gender and age (n=900)

Age bracket	Female		Male		Total	
	n	%	n	%	n	%
18–24	3	0.6	2	0.5	5	0.6
25–34	8	1.7	11	2.5	19	2.1
35–44	31	6.7	34	7.8	65	7.2
45–54	62	13.4	80	18.3	142	15.8
55–64	107	23.1	89	20.4	196	21.8
65+	240	51.8	216	49.4	456	50.7
Prefer not to say	12	2.6	5	1.1	17	1.9
TOTAL	463	100	437	100	900	100

Table 2: Resident sample distribution by location (n=900)

State	Metro		Regional		Total	
	n	%	n	%	n	%
ACT	0	0	0	0	0	0
NSW	40	7.8	197	50.6	237	26.3
NT	12	2.3	0	0	12	1.3
Qld	144	28.2	9	2.3	153	17
SA	87	17	49	12.6	136	15.1
Tas.	61	11.9	32	8.2	93	10.3
Vic.	166	32.5	54	13.9	220	24.2
WA	1	0.2	48	12.3	49	5.4
TOTAL	511	100	389	100	900	100

Sampling framework

Due to the limited sample available for the other types of connections at the time fieldwork was conducted (April/May 2016), the ACMA provided an initial set of 'ready-for-service' locations—areas connected to the NBN via FTTP technology, in which fibre-optic cable is connected through to the premises itself. These locations were split into two main groups:

- > Those for which the disconnection date for regular services had already expired (51 listings dated between 14 August 2015 and 22 January 2016)—intended to be used for 'connected' sampling.
- > Those for which the ready-for-service dates had not expired (89 listings dated between 8 April and 8 July 2016)—intended to be used primarily for 'not-connected' sampling.

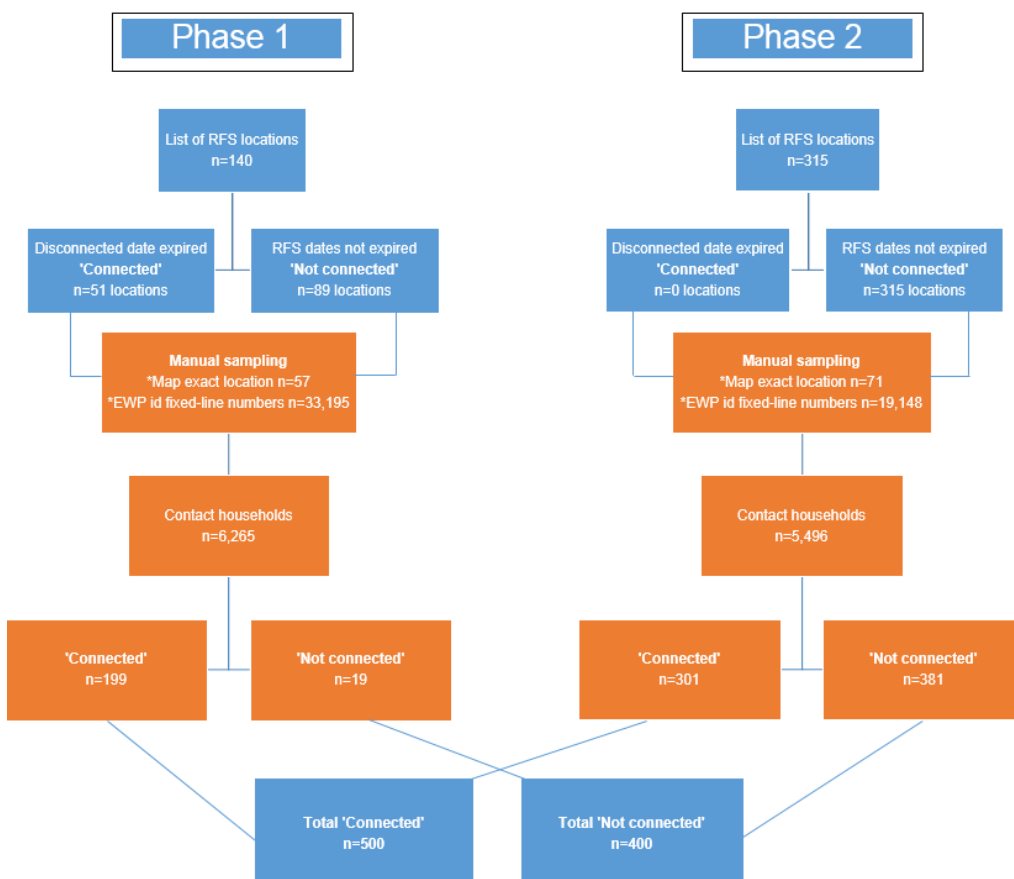
Phase one of manual sampling was undertaken within these locations by using:

1. The NBN rollout region identifier to map the exact location.
2. Google Maps to identify the street names within the bounds of each NBN identifier location.
3. The electronic White Pages to extract the relevant phone numbers for the streets in each location.

Interviewing from these initial lists resulted in respondents who were almost exclusively connected to the NBN, even when using the list intended for the 'not-connected' sample. As such, the ACMA provided a subsequent list with 315 different NBN identifier locations with disconnection dates for regular service between 10 June 2016 and 19 May 2017. A second phase of manual sampling, as outlined above, was then undertaken using 71 of the locations provided (see Figure 11).

The same sampling technique and framework was used for the business component.

Figure 11: Visualisation of sampling method



Analysis

All analysis of both resident and business data was undertaken by Woolcott Research's internal data processing unit using NIPO and SPSS+ software.

No weighting was applied to the results of either the residential or business components, as the population being targeted is difficult to define in terms of specific demographics such as age and gender.

Quantitative fieldwork—businesses

This component was conducted by a series of n=304 CATI interviews conducted among business telecommunications decision-makers in small (two to 19 employees) to medium (20–50 employees)-sized enterprises. See tables 3 and 4 for sample distributions.

Table 3: Business sample distribution by gender (n=304)

Female		Male		Total	
n	%	n	%	n	%
149	49.0	155	51.0	304	100.0

Table 4: Business sample distribution by location (n=304)

State	Metro		Regional		Total	
	n	%	n	%	n	%
ACT	0	0	0	0	0	0
NSW	14	11.9	91	48.9	105	34.5
NT	18	15.3	0	0	18	5.9
Qld	33	28	17	9.1	50	16.4
SA	25	21.2	18	9.7	43	14.1
Tas.	10	8.5	29	15.6	39	12.8
Vic.	15	12.7	15	8.1	30	9.9
WA	3	2.5	16	8.6	19	6.3
TOTAL	118	100	186	100	304	100

Large businesses (50+ employees) were not included in the research as the telecommunications decision-makers are potentially based in an office outside the sampling area, or are not directly affected by any potential disruption or usability issues during and after migration.

Statistical Clearing House approval

This survey was approved by the Statistical Clearing House before the start of fieldwork (approval number 02490 -- 01). This process required a review of the survey objectives, methodology and intended outputs to ensure minimal respondent load for businesses being approached to respond.

A Statistical Clearing House review and approval is required in order to conduct any business survey on behalf of the Australian Government among 50 or more businesses.

Qualitative fieldwork—residents

In addition to the quantitative fieldwork conducted among residents, Woolcott Research undertook a series of qualitative sessions to allow for greater geographic coverage and more detailed exploration of participants' attitudes, perceptions and experiences.

As with the quantitative fieldwork, all participants were residents of 'ready-for-service' locations; were either connected or not yet connected to the NBN; and, if connected, were using FTTP technology.

Qualitative sessions included:

- > Mini-group discussions—a small group discussion with four to six residents from the same area and with a common NBN connection experience (for example, all not yet connected). Mini-group discussions were selected because they allow for a more detailed exploration of participants’ understanding and experiences with the NBN migration.
- > In-depth interviews—a one-on-one interview with a resident about their NBN connection experience. Again, this discussion approach allowed for a particularly detailed exploration of a participant’s understanding and experiences of the NBN migration process.
- > Household ethnographic sessions—a discussion occurring within the participant’s home that combines immersive observation and one-on-one interviewing. Members of a household are all involved in order to explore the relationship between individuals’ telecommunications usage and their expectations, understanding and experiences of the NBN migration experience.
- > Affinity groups—a small group discussion among residents who are friends or know each other before attending the group. These are typically conducted in the home of one of the participants, providing a comfortable environment for participants to be open about their attitudes and experiences. Affinity groups also allow for great depth of exploration of shared experiences, and tend to involve rich discussion, high level of recall and openness.

In addition to connected and not-connected participants, some specific sub-groups of consumers were targeted to explore their experiences in more depth. These sub-groups included those with a high-disruption migration experience was highly disrupted and those from non-English-speaking households.

A series of 16 mini-group discussions, 20 in-depth interviews, and 12 household ethnographic sessions were conducted across the three states (New South Wales, Victoria and Queensland) as follows:

Table 5: Overview of qualitative fieldwork sessions

Audience	Type of participant	(Jamisontown) Penrith	Homebush West	Lidcombe	Berala/ Auburn	Cairns City/ North	Brunswick/ Carlton
In 'ready-for-service' area and connected	Affinity groups		1x mini-group			1x mini-group	1x mini-group
	Non-affinity groups/ in-depths/ ethnographic		1x mini-group 3x in-depth 2x ethnographic			1x mini group 3x in-depth 2x ethnographic	1x mini group 3x in-depth 1x ethnographic
	High-level disruption experience		1x mini-group 2x in-depth 1x ethnographic			1x mini-group	1x mini-group 1x in-depth 2x ethnographic
	Matched language				1x mini-group		
In 'ready-for-service' area but not connected	Affinity groups	1x mini-group				1x mini-group	
	Non-affinity groups/ in-depths/ ethnographic	1x mini-group 2x in-depth 1x ethnographic				1x mini-group 3x in-depth 2x ethnographic	1x mini-group 3x in-depth 1x ethnographic
	Matched language			1x mini-group			
TOTAL		2x mini-group 2x in-depth 1x ethnographic	3x mini-group 5x in-depth 3x ethnographic	1x mini-group	1x mini-group	5x mini-group 6x in-depth 4x ethnographic	4x mini-group 7x in-depth 4x ethnographic

Recruitment

Recruitment for the qualitative sessions was conducted predominantly in-house by Woolcott Research's telephone interviewers. Using the technique outlined above for the quantitative components of research, a sample was pulled for each of the session locations. Experienced interviewers then invited residents to participate in the sessions according to a screener questionnaire and the participant's own schedule (some sessions were carried out over successive days).

The screener questionnaire identified those with a high-disruption migration experience, as well as those from non-English-speaking households. Further, some recruitment for matched language groups was outsourced to a specialised market research recruitment organisation, Alta Recruitment, due to the specific demographics (Cantonese and Arabic speakers) being targeted.

Confirmation emails or telephone calls were sent/made in the days leading up to the appointment.

Communications audit

This component of research involved an audit of communications material received by residents about the NBN rollout. Communication was sourced from residents within rollout areas as well as through online investigation.

Interpreting the findings in this report

In order to accurately reflect consumers' NBN migration experience, research findings for the quantitative, qualitative and communications audit have been presented together.

Due to the sampling frame used, we caution that the sample has:

- > an older skew (n=592 are over 55+ out of n=900 residents)
- > a lower representation of mobile-only households (n=33 out of 900)
- > a greater representation of retired people (n=463 out of 900).

Percentages and averages

Percentages are rounded to whole numbers and so in some cases total percentages may not add to 100 per cent due to rounding.

Mean scores have been calculated for scale questions and have been rounded to one decimal place.

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