

# Social Housing and Broadband

Internet Use and Affordability for Social Housing Residents



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Housing Residents

Infoxchange and ACCAN

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## **Social Housing and Broadband: Internet Use and Affordability for Social Housing Residents**

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# Abbreviations

ABS	Australian Bureau of Statistics
ACCAN	Australian Communications Consumer Action Network
AGIMO	Australian Government Information Management Office
AIHW	Australian Institute of Health and Welfare
COAG	Council of Australian Governments
DTO	Digital Transformation Office
ESDS	Electronic Service Delivery Strategy
FACS	Family and Community Services
ICHO	Indigenous Community Housing Organisation
ICT	Information and Communication Technology
LIMAC	Low-income Measures Assessment Committee
MDU	Multi-Dwelling Units (apartment blocks, etc)
NAHA	National Affordable Housing Agreement
NBN	National Broadband Network
NBN Co	NBN Company
RTIRC	Regional Telecommunications Independent Review Committee
SDU	Single Dwelling Units (freestanding houses, etc)
SOMIH	State Owned and Managed Indigenous Housing
USO	Universal Service Obligation

# Executive summary

## Background

The availability of technology and the internet presents a wealth of opportunities for those who are connected. However, for the one in seven Australians not connected to the internet this is not the case (ABS, 2016). Access to information and communication technology (ICT) is another point of difference between the 'haves' and 'have-nots', impacting upon many of life's activities.

The background of this research stems from the commitment of the Federal Government to move its service delivery to a 'digital-first' model by 2017, with the aim that four out of five Australians would choose to interact with the government online by 2020. However, achieving this goal could significantly disadvantage those Australians who are not connected to or using the internet yet.

Additionally, the National Broadband Network Corporation's (NBN Co<sup>1</sup>) stated purpose is to "enable the digital economy and close the digital divide", so that "by 2020 all homes, businesses and communities across Australia can access high-speed broadband" (NBN Co, 2014). Intervention is required to achieve these aims, not just the installation of cables.

As interactions with government services, business transactions and social interactions are increasingly mediated through the internet, communities with limited digital competence are at an increasing risk of disadvantage. Persistent and significant differences remain between different groups of Australians in relation to both access and use of the internet. These differences are related to attributes including income, age, employment status, education levels and location (Ewing, 2016).

This report focuses on the more than 427,000 dwellings (about 5% of housing stock) in Australia which fall into the category of social housing (AIHW, 2015). Older Australians continue to have the lowest rate of adoption of information and communications technology in Australia (ABS, 2016), while people with disabilities often face a variety of challenges when using technology. Both groups are strongly represented in social housing (AIHW, 2015), and statistics suggest that social housing residents are less likely to have the skills required to be digitally competent (Seton, 2015) and thus most at risk of falling on the wrong side of the digital divide.

Social housing residents are significantly more likely than the general public to have no internet connection at home (ABS, 2014). At the same time, these residents are often required to interact with government on a regular basis. As such, they are vulnerable to losing effective access to government services if digital connectivity becomes the default.

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<sup>1</sup> NBN Co is also referred to as nbn<sup>TM</sup> and the national broadband network it is building as the NBN. For clarity in this report we use the term NBN Co to refer to the organisation, and NBN for the network.

## Research results

Governments worldwide recognise the importance of online service provision and have strategies to expand their reach. However, the success – or otherwise – of online service provision depends heavily on the skills, confidence and understanding of the benefits of broadband if a population is to get maximum benefit (Campbell, 2013).

The research underlying this report aimed to:

- understand the demand for broadband in social housing; and
- assess the affordability and suitability of current broadband offers for social housing residents.

In undertaking this research, we sought to understand the ‘digital readiness’ of residents by investigating their digital literacy and how they were currently using the internet. We also sought to identify gaps in the broadband market, and suitable service models for social housing residents.

The research used both qualitative and quantitative assessments in three distinct stages, using a literature review, surveys, and interviews with selected stakeholders. The survey received 87 responses from social housing residents, and 26 stakeholder interviews and surveys took place; the results provide a valuable snapshot of internet usage in social housing.

Stakeholders strongly agreed internet access is essential, supporting the broader notion that – like universal phone service – internet access should now be seen as a right rather than a luxury. Furthermore, there was strong agreement amongst stakeholders that broadband should be made affordable for social housing residents, especially where there is an obligation to connect to the NBN for telephony as well. Free and universal access to Wi-Fi was proposed by some stakeholders. Interestingly, many social housing residents did not use shared internet services despite the potential for their provision at low or no cost; this may indicate a preference for using their own private service, or a lack of awareness of these shared facilities. Even broadband retailers agreed that there were insufficient internet service options for people on low incomes. There were, however, mixed perceptions on what exactly constituted ‘affordable’.

The survey found that internet use is an essential part of modern life, so much so that access is ensured through sacrificing other services or goods. Affordability needs to be understood in the context of when and how existing policies, such as for financial hardship, operate.

The importance of not just providing options for low-income consumers, but increasing awareness of what is available and how to choose the appropriate option, was apparent.

# Introduction

The context for this report stems from two large projects currently underway in Australia. The first is the Federal Government's commitment to move its service delivery to a 'digital-first' model by 2017, with an aim that four out of five Australians would choose to interact with the government online by 2020. The second is the upgrading of the telecommunications network through the National Broadband Network (NBN) with an aim of having all premises being able to receive a 25 Mbps broadband service by 2020.

For residents of social housing, the act of connecting to broadband is more complex than for homeowners or renters in the private market. A social housing resident may need to engage with a large number of stakeholders (e.g. Centrelink, housing providers and government offices) with separate considerations and permission requirements before being able to connect to the internet. Consequently, there are more barriers to broadband uptake for social housing residents. This study by Infoxchange found that social housing residents are more likely to be without an internet connection at home than the general public. Within this context, questions arise, such as:

- What causes a lower take up rate of internet among social housing residents?
- Will lower than average take up rates continue?
- What do we know about how social housing residents currently use the internet?
- Will products offered over the NBN or substitute platforms be affordable?

To examine these questions, ACCAN engaged Infoxchange in mid-2015 with the intention of sparking an ongoing discussion at ACCAN's 2015 national conference '*Dollars and Bytes: Communications affordability now and tomorrow*'. It was envisaged that such a discussion would lead to a better understanding of the service models in use, level of take up, and affordability of broadband products for social housing residents. In turn, this would more fully inform policy, practice and service to social housing.

The research was therefore undertaken in three parts – a literature review of the policies for access and use in place today, followed by two survey components.

In that context, it should be noted that this research is not a comprehensive work, but rather a preliminary exploration of the topic. It does, however, raise valid questions around broadband affordability and NBN readiness for residents of social housing.

# Literature review

The literature review sought to identify resources describing the availability of internet connectivity for social housing and usage of broadband by residents. In particular, the literature review sought to compile any evidence on the level of digital literacy of social housing residents and the suitability and affordability of current broadband products. This included exploring –

- What social housing is and who lives in it.
- The NBN and how its roll-out will affect those in social housing
- Cost and affordability
- Policy initiatives including ‘digital first’ and digital inclusion

In addition, the UK experience was examined to see what lessons could be learned from similar work.

## Social housing: Provision, places and people

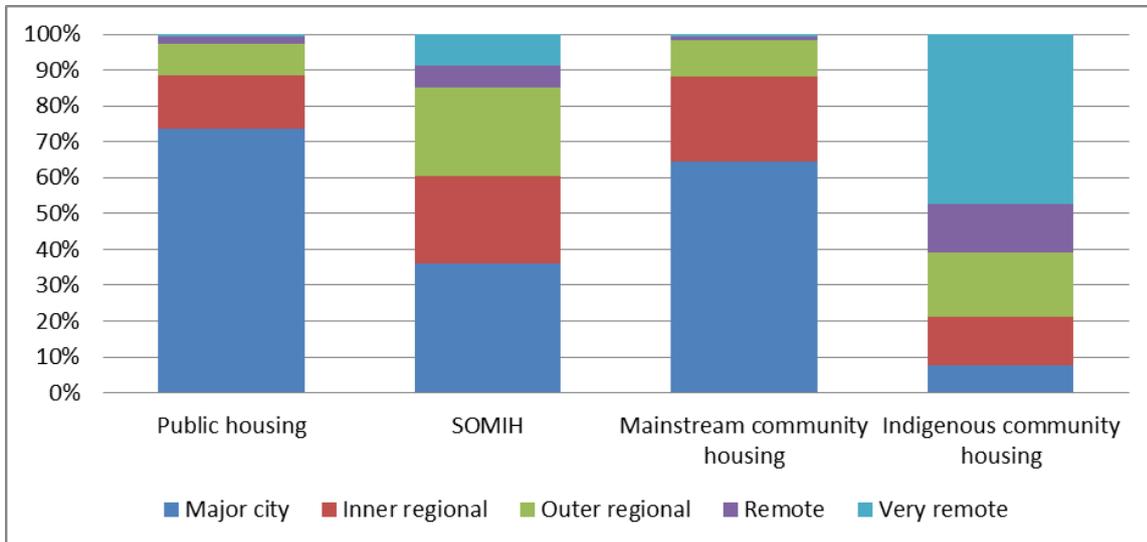
### Provision

‘Social housing’ is an umbrella term for all housing that is provided by the government and community sectors. Social housing in Australia is administered under four main programs. These are listed below, with data from the Australian Institute of Health and Welfare (2015):

- **Public Rental Housing (Public Housing)** consists of publicly owned or leased dwellings that state and territory governments administer. This provides housing for very low and fixed-income households who cannot maintain a tenancy in the private market (323,803, or 76% of social housing dwellings).
- **State Owned and Managed Indigenous Housing (SOMIH)** is administered by state and territory governments but is targeted specifically at low- to moderate-income households that have at least one member who identifies as being of Aboriginal and/or Torres Strait Islander origin (10,113 or 2% of social housing dwellings).
- **Mainstream Community Housing** is provided for low- to moderate-income or special needs households by not-for-profit providers. Generally, the housing stock remains in state government ownership, with management outsourced under contract. Mainstream Community Housing is referred to as ‘mainstream’ to distinguish it from Indigenous Community Housing (71,036, or 17% of social housing dwellings).
- **Indigenous Community Housing** is owned and/or managed by an indigenous community housing organisation (ICHO) and provides housing to Indigenous Australians. Indigenous community housing is funded along with mainstream housing services under the National Affordable Housing Agreement (COAG, 2009a) and the National Partnership Agreement on Remote Indigenous Housing (COAG, 2009b) (17,529, or 4%, under the Indigenous community housing program and 5,096, or 1%, under the NT remote community housing program).

## Places

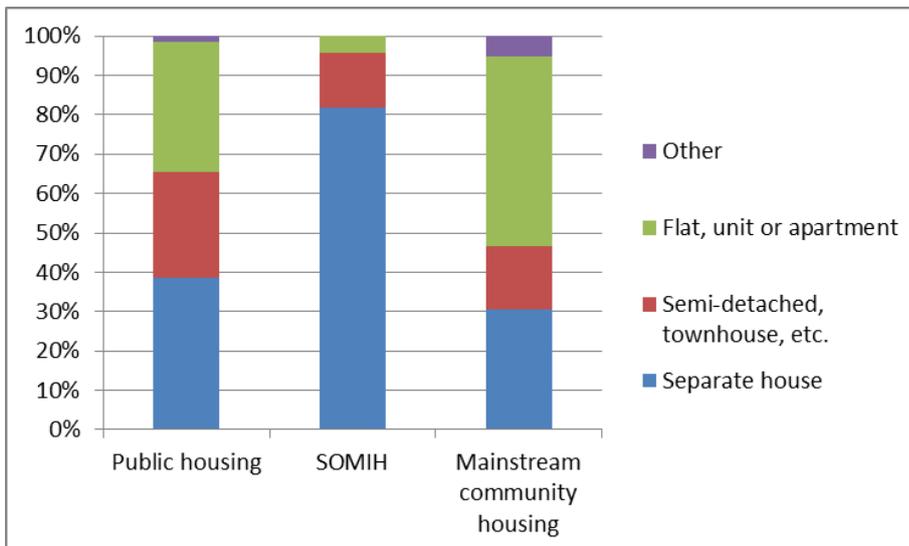
According to AIHW (2015), in June 2014 most public housing was located in major cities. Unsurprisingly however, this varied by social housing delivery program (see Figure 1), with around 60% of indigenous community housing in 'remote' or 'very remote' locations.



Source - AIHW, 2015

**Figure 1: Proportion of social housing dwellings by remoteness and program type**

Like the private housing sector, social housing is made up of a variety of housing types to accommodate the broad range of people who require these services. In 2013 (AIHW, 2013, p.26), social housing consisted of approximately 38% detached houses, 24% semi-detached or townhouses and 35% flats, units or apartments. Figure 2 shows this breakdown according to the three of the four available program types most likely to be served by the NBN.



Source – AIHW, 2015

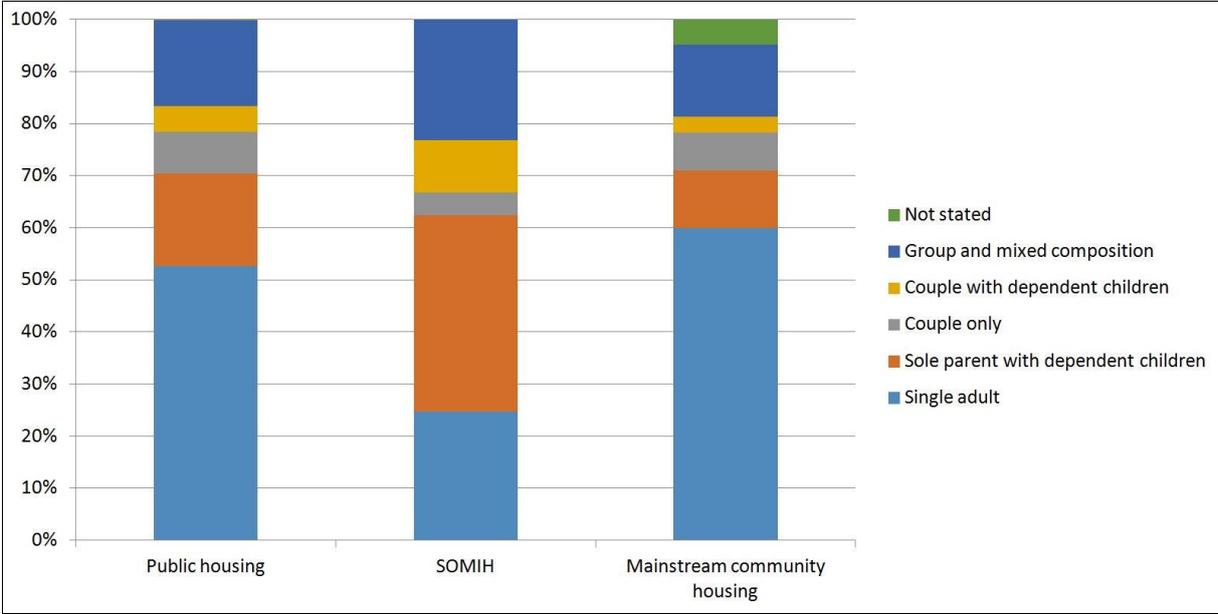
**Figure 2: Proportion of social housing dwellings by building type and housing program**

There is a marked difference in dwelling types between social housing programs. The most common type of dwelling in public housing and SOMIH is a detached house. In community

housing, two bedroom flats and units are more common. There are a number of factors affecting this including location (e.g. units are more common in major cities and detached houses are more common in remote areas) and family requirements.

### People

The graph in Figure 3 shows the variation in household composition across three of the different housing programs:



Source – AIHW, 2015.

**Figure 3: Household composition by program, as of June 2014**

There are a higher proportion of females than males as main tenants in social housing, with 61% of public rental tenants, 75% of SOMIH tenants and 58% of community housing households tenants being female (AIHW, 2015).

While historically the focus of social housing in Australia has been to provide affordable housing to low-income families, scarce public housing resources have been increasingly targeted towards the most disadvantaged in the community (AIHW, 2014). In June 2015, for example, 40% of new social housing households had a member with a disability. In fact, 43% of public rental, 35% of SOMIH and 37% of mainstream community housing tenants reported a disability (AIHW, 2015). This indicates that some residents may require additional support from their telecommunications services.

### Income

Residents of social housing are more likely to be in receipt of benefits. Disability support pension and age pension were the most common primary source of household income in 2015 (AIHW, 2014). The majority of social housing residents are low income, with over 70% in the lowest group for disposable income (ABS, 2013).

## **Duration of accommodation**

Most social housing tenants are in place for over five years, with one in three living there longer than 10 years (AIHW, 2014). A small percentage of residents transfer between dwellings each year, while about 7% ended their contract in the year 2012-2013 (AIHW, 2014). This relatively long stay in dwellings can influence the type of broadband and other service contracts that residents can sign up to. In addition, retail service providers may find opportunities in this; for example, forecasting returns on investment over a longer period.

## **Education**

Education levels amongst social housing residents are lower than in the general population. In 2012 half of public housing tenants over 15 years of age indicated that their highest level of education was Year 10 or its equivalent (AIHW, 2014).

## **Telecommunications issues**

### **The National Broadband Network**

The federal government has stated that it is committed to providing ‘superfast’ broadband<sup>2</sup> to all premises in Australia. To do this, it created the company known as NBN Co to provide modernised infrastructure across the country in the form of the National Broadband Network (NBN). The construction of the NBN, arguably Australia’s most ambitious infrastructure project, was announced by the then Labor federal government on 7 April 2009. Universal high speed connectivity was envisaged to enable the emerging digital economy and support the digital inclusion of a range of different communities (DBCDE, 2009; Conroy, 2009). Since then, successive federal governments have retained a commitment to fast broadband across a high capacity platform incorporating a combination of infrastructure technologies. In addition, a competitive telecommunications policy regime (DoCA, 2016) has been introduced, meaning a number of areas may receive an alternative – but equivalent – broadband network connection.

The federal government and NBN Co’s commitment to connecting social housing was called into question in 2014 when representatives of the residents of the Carlton housing estate in Victoria identified that although surrounding areas had been connected to the NBN, the estate had not (Commonwealth of Australia, 2014).

In response to questions relating to the connection of the NBN to the Carlton estate and social housing more generally, a representative of the Minister for Communications said that the NBN rollout does include public housing; that the rollout is continuing in multi-dwelling units (MDUs) in areas where the build has commenced; that those within the fibre-to-the-premises network area would receive that service; and that “MDUs are generally connected at a different time to Single Dwelling Units (SDUs), but this timing is not related to building ownership. NBN Co can confirm that there is no prioritisation of private homes over public housing” (Ludlam, 2014). The estate in Carlton was connected to the NBN in late 2014 (Price, 2014).

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<sup>2</sup> See definition at <http://registers.accc.gov.au/content/index.phtml/itemId/1197507>

## Connecting social housing

As social housing is administered by the states and territories, it falls to these authorities to determine how, and if, any changes or alterations to residential properties are made. Consequently, the websites of some state providers were examined with a view to identifying broadband connection information and related policy.

The state housing authorities examined (South Australia, Western Australia, Queensland, New South Wales, Victoria and the Australian Capital Territory) provide information regarding this on their respective websites but references to NBN connection are almost non-existent. For most jurisdictions, it appears that residents seeking to arrange a connection to the broadband network must comply with the provisions dealing with requests to make 'alterations' to the home.

The requirements of these provisions include:

- obtaining written permission for alterations to be made to the home, such as adding a satellite dish;
- paying for those changes and any ongoing costs, including damage to the house and associated repair costs; and
- obtaining any relevant council permits that may be needed.

When connecting to the NBN it could therefore be concluded that, across the above jurisdictions, NBN suppliers and the tenant must work it out between themselves. This is demonstrably true in the ACT, where the Directorate advises tenants that they will need to change their supplier to the NBN to maintain connectivity – but advises that Housing ACT will not be liable for any costs of connection (Housing ACT, 2013a, 2013b).

In newly constructed dwellings, relevant building guidelines and standards set some expectations and direction around connectivity. Housing New South Wales for example (located administratively within the Department of Family and Community Services) requires the NBN to be connected in new constructions. Appropriate conduits to allow for fibre connections must be included, but a telephone point is not required if the dwelling is in an NBN-available area (FACS, 2014). This obliges a resident in a new social housing dwelling in an NBN-available area to use the NBN for communication. Further work needs to be done to understand whether this option is affordable for residents.

In South Australia, building standards include comprehensive reference to the NBN for new dwellings, stating that each detached house shall have the necessary infrastructure. All installations must comply with the requirements of NBN Co. For multi-dwelling complexes, the contractor will need to contact NBN Co for their requirements. The standard also includes NBN Co rules for cabling conduits, and NBN Co's cabling guide and recommended Home Data Unit guidelines (Housing SA, 2013).

Victoria requires at least one telephone point to be accompanied by a general power outlet ([DHHS Victoria, 2011](#)). Similarly, the building guidelines for social housing in Western Australia state that all construction must provide telephone and data cabling to conform to the electrical plan and to meet the requirements of NBN Co and other statutory bodies (WA Department of Housing, 2013).

## Universal Service Obligation

The Universal Service Obligation (USO) requires the primary universal service provider – Telstra – to provide all Australians with “equitable access to standard telephone services and payphones” (ACMA, 2015).

The USO aims to ensure phone services are affordable, available and accessible. When the NBN rollout commenced, the USO was flagged for review.

The 2015 Regional Telecommunications Independent Review Committee (RTIRC) recommended the development of a new safeguard for “voice and data” services to replace the “rapidly declining relevance” of the current USO (RTIRC, 2015).

## Cost and affordability

Leading academics define affordability as a consumer’s ability to pay for and use telecommunications without sacrificing expenditure on other essential services and items (Lewin & Milne, 2010). Affordability is particularly an issue for those that have low predictability of income and have less well developed coping mechanisms. Affordability is a known barrier for broadband services. Nationally, the rate of households with internet is currently 86%, with access falling to just 66% for households in the lowest income bracket (ABS, 2016). The ABS found that “for households with children under 15 years, the most common reason given for not accessing the internet was cost (43%)”.

Affordability of telecommunication services is currently addressed in Australia in two ways: through the carrier licence conditions on Telstra that requires it to “offer products and arrangements to low-income customers (the low income package)” (Carrier Licence Conditions (Telstra Corporation Limited) Declaration 1997) and the Centrelink Telephone Allowance (Department of Human Services, 2016). Consumers in social housing may be in receipt of one or both of these. Few other retailers have offers specifically aimed at customers on low incomes or social housing residents. Telstra’s ‘Access for Everyone’ package is guided by the Low Income Measures Assessment Committee (LIMAC), which is made up of a number of community organisations.

Telstra reports annually to LIMAC on its low-income measures. In the most recent published report (LIMAC, 2014), ‘Access for Everyone’ refers to basic telephony services and discounts for eligible customers. The only specific reference to broadband services is in a phone-and-broadband bundle offer for low-income customers (LIMAC, 2014).

There are a range of services and providers available in the telecommunications market; however, there are factors about the market which may act as a barrier to services. Some of these include:

- **Cost of devices:** In order to use the telecommunications services, devices such as handsets, modems, tablets and mobile phones need to be purchased or obtained and maintained. These can come with a hefty cost, e.g. smartphones, tablets and laptops can cost \$500+ in up-front fees and varying ongoing costs to maintain, insure, protect and replace.

- **Cost of connection:** Fixed line services often have an upfront cost, such as a set-up fee (usually \$100). If there is no previous connection to the premise, a further fee is often required (usually \$300).
- **Cost of contract:** Monthly plans usually offer better value for money than pre-paid plans; however, there are risks to having a contract as the consumer is committed to a long period of payments. Cancelling contracts may also incur termination fees.

An assessment of advertised NBN offerings from a number of Australian retailers found the cheapest options (based on the NBN Tier 1 speeds of 12 GB/s downloads and 1 GB/s uploads with varying download quotas) range from \$39.99 to \$73 per month.

## Digital inclusion

In 2016, 86% of all Australian households had internet (ABS 2016). This continued the general upward trend of internet access, increasing from 79% in 2011-2012 and 83% in 2012-13 (ABS 2014).

The 2014 data also indicates significant stratification of internet access based on household income. While 98% of households with an income of \$120,000 or more had a home internet connection, only 57% of households with an income of \$40,000 or less did and 23% of this same income bracket did not access the internet at all. Of those households that were connected, 58% used the internet to access government services (ABS, 2014).

Age is another demographic element where internet access is significantly skewed: 96% of households with a child aged under 15 have internet access at home, compared with 44% of people aged 65 or over. Australians over 65 who have internet access at home used the following online services:

- Paying bills and banking online (55%)
- Accessing government services (50%)
- Voice or video calls (30%)
- Social networking (30%) (ABS 2014)

The ABS data does not indicate reasons for the disparities across age and income brackets, but studies conducted in the United Kingdom, United States and New Zealand mirror the Australian situation, finding that the uptake of online services in people aged over 65 appears to be “stratified, with internet users more likely to come from the relatively affluent, educated middle classes” (Sourbati, 2009; Seton, 2015).

Taking into account that the majority of social housing households have at least one member over 65 and are low income by definition, it would be expected that the take-up of home internet services by social housing residents will generally be lower than that of the broader population.

## Policy

### Federal initiatives

The move to a digital-first service delivery model was first flagged by the Australian Government Information Management Office (AGIMO) in 2013, under the Gillard Government (AGIMO, 2013). The former Communications Minister's update to the National Digital Economy Strategy included a commitment to "us[e] digital channels as the primary or preferred means of delivery for government services" and that "by December 2017 Australians will be able to complete the vast majority of their business with government online" (AGIMO, 2013).

The Coalition confirmed its commitment to this Digital First timetable in its *Policy for E-Government and the Digital Economy*, released before the 2013 election. The policy – which continues to exert significant influence in this particular area – does not deal specifically with the use of online government services by social housing residents, but does contain a general statement of intent regarding the transition of the majority of government services to an online model:

*It's time for the Australian government to show leadership on the digital economy and make a clear, comprehensive commitment to getting all of its major services and interactions with individuals online* (Liberal Party of Australia, 2013, p.19).

Insofar as the implementation of the Digital First model is concerned, it goes on to state that:

*A Coalition government will –*

- *Designate the internet as the default way to interact with users, other than for defined exceptions. We will look to establish a Digital Service Standard and Digital Design Guide, modelled on the UK equivalents, to ensure consistent design of current and future services.*
- *Give people the option to elect to receive material from the government in digital form or in hard copy, depending on their circumstances. We will aim to provide all correspondence, documents and forms in digital form, as well as hard copy, by 2017.*
- *Seek to ensure every government interaction that occurs more than 50,000 times per year can be achieved online by 2017* (Liberal Party of Australia, 2013, p.19).

In July 2015, the federal government established the Digital Transformation Office<sup>3</sup>(DTO) within the Department of Communications. The role of this office is to manage the digitisation of government services, 'identifying where improvements are most urgently needed, and re-designing these services from the ground up' (DTO, 2015b).

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<sup>3</sup> It was announced that the DTO will transition to the Digital Transformation Agency responsible for ICT policy and ICT procurement functions on 14 October 2016  
<https://ministers.dpmc.gov.au/taylor/2016/transforming-commonwealths-digital-agenda>

The DTO has formulated a 'Digital Service Standard' which "establishes the criteria that Australian Government digital services must meet to ensure our services are simpler, faster, and easier to use" (DTO, 2015a).

Under this Standard, government agencies must –

- Understand user needs through a deep knowledge of who the service users are, and what that means for digital and assisted digital service design.
- Adopt a user-centred design approach.
- Assess what personal user data and information the service will be providing, using or storing, and put in place appropriate measures to address security risks, legal responsibilities and privacy considerations.
- Build the service using agile, iterative and user-centred methods.
- Employ a common look, feel, tone and functionality that meets the needs of users.
- Integrate the service with any non-digital interactions.
- Put appropriate assisted digital support in place, aimed towards those who genuinely need it.

In addition to action taken by the federal government, state and territory governments are investigating and implementing strategies for improved online service provision.

There is considerable attraction for government agencies in adopting digital first approaches in order to obtain efficiencies from streamlined service interaction. The risk, however, is that barriers to access due to affordability and low digital literacy may prevent realisation of these benefits. Social housing is an area where great potential benefit could be achieved through co-ordinated policy.

## State-based initiatives

As with the federal government, each of the states of Australia have strategies for improved online service provision, with many well down the path of implementing a range of fully online processes. Even the least advanced systems included downloadable, printable forms. In each state, however, the level of literacy required to navigate online government service sites is high.

While specific initiatives for online process conversion could not be identified on the websites of the various departments responsible for housing in each of the states, many opportunities clearly exist in this service area. Tasks such as simply confirming a place on a housing waiting list, through to maintenance requests, could readily go online. Some examples of these were reported in Seton et al, 2015. Unfortunately, a search for 'NBN' on most of these websites returned a nil result; the exception was the Queensland Department of Housing and Public Works (<http://www.hpw.qld.gov.au/>), which returned a range of documents from complex building specifications to simple tenant advice (DHPW, 2016a, 2016b).

**New South Wales:** According to *Digital +: NSW Government ICT Strategy Update 2014-2015* (Office of Finance and Services, 2014), NSW intends to "position itself to become a fully digital government... It now has a stronger focus on accelerating to digital government and digital-enabled business transformation." In September 2014 the government's Accelerating Digital Government Taskforce conducted a public survey to determine

preferences and priorities for digital government in NSW. A clear majority of the survey's 1,853 respondents indicated a "strong preference for accessing public services via online and mobile app channels" with approximately 68% of respondents agreeing or strongly agreeing that they would prefer to access public services this way. This is reflected in a strong degree of digital enablement of key services through the 'Services NSW' platform.

**Victoria:** Victoria's Technology Plan for the Future focuses largely on attracting investment and innovation in the state's ICT sector, but does present technological development as an opportunity to transform government service and public engagement. The Victorian Government is committed to implementing "innovative web and mobile applications to improve access to the public sector, greater access to public sector information and data through a public sector information release framework, and enhanced data.vic.gov.au site... data mashing competitions, [and] broadened community engagement through online consultation platforms" (State of Victoria, 2011). The website <http://vic.gov.au> aggregates the many online services available from the Victorian state government and related entities.

**Queensland:** According to the Queensland Government ICT Strategy 2013 - 2017 (Department of Science, Information Technology, Innovation and the Arts, 2013) "[c]ommunity members should be able to experience all government services the way they experience other digital services. This means digital channels that allow the community to interact with its government, whether that is to inform debate, purchase, register, supply or engage with it". Similarly, many Queensland government services are now available via <http://qld.gov.au>. The Department of Housing and Public Works<sup>4</sup> offers a significant list of online forms that can be downloaded and printed; ironically, at the time of this report none could be completed via computer.

**South Australia:** The SA Government's ICT strategy, South Australia Connected, states: "The evidence is clear – our customers prefer online services, and increasingly, mobile-ready services. Introducing new services, improving old services – whenever possible, our approach will be 'digital by default'" (Office for Digital Government, 2016).

**Western Australia:** "The Citizen Centric Government: Electronic Service Delivery Strategy (ESDS) was launched in March 2007. The ESDS provides a clear vision for how electronic services will have transformed service delivery capability within 10 years. It identifies the capabilities agencies need to meet the changing service delivery expectations of citizens and business into the future" (Department of the Premier and Cabinet, 2015).

**Tasmania:** The Office of eGovernment (OeG) "reflects a new direction in progressing strategic issues in the use of information and communication technology (ICT) across the Tasmanian Government" (Department of Premier and Cabinet, 2011).

**Australian Capital Territory:** The Digital Canberra Action Plan to be implemented between 2014 - 2018 sets out a number of digital initiatives designed to "assist Government to better engage with citizens, be more open and transparent and deliver services more efficiently to

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<sup>4</sup> The Department of Housing and Public Works social housing forms listing can be found at: <http://www.hpw.qld.gov.au/aboutus/ReportsPublications/FormsTemplates/Pages/SocialHousingforms.aspx>

meet the needs of the community” (Chief Minister, 2014). The website <http://accesscanberra.act.gov.au> is the face of this online service platform.

**Northern Territory:** While no specific overarching policy framework was identified, the Territory’s Digital Policy Unit develops and maintains ICT policies, standards, guidelines and procedures for government and operates the <http://www.nt.gov.au/> digital services portal.

## International initiatives

Governments worldwide are rapidly expanding their service provision capabilities online. A study conducted by the ACT Government (2015) found that internationally, successful e-government service strategies took a whole-of-government approach. International trends in services provision include:

- improving access to services;
- segmenting clients (e.g. focusing on client groups with common needs, and bundling service offerings);
- personalising service (e.g. providing a unique personal account across agencies/levels of government, and focusing on individual client needs); and
- integrating services (e.g. providing ‘one-stop-shops’).

The ACT Government study cites examples including –

- **Brisbane:** Brisbane City Council has optimised its website for all internet-enabled phones. The site provides information on council services including libraries, events, waste collection, public spaces, traffic conditions and flood risks.
- **Canada:** Service Canada, established in 2005, integrates a single-window internet portal with call centres and in-person service points. The online services portal allows users to access information by demographic group (e.g. families, seniors, all Canadians), by life event (e.g. having a baby, buying a house, after a death), and by subject (e.g. employment, health, etc.).
- **United Kingdom:** The British government set up GOV.UK, reducing a number of government sites to one domain, with the public invited to participate in development and testing.

In 2014, the government of the United Kingdom undertook to reduce digital exclusion, in partnership with actors from the public, private and voluntary sectors across the country. The aim of the project was to reduce the number of people who are offline by 25% every two years, with the goal specified that “by 2020 everyone who can be digitally capable, will be” (UK Government, 2014). Prominent among the strategies is the 'Digital by Default' initiative in which the 25 most used public processes are to move online as their chief mode of service delivery (Dowd, 2014). As the process began, the question of how this change would affect social housing tenants was considered. In 2012, just under half of all UK adults who had never been online lived in social housing (Housing Technology & Race Online, 2012). As a result, a partnership strategy was implemented with British Telecom (BT) to help housing providers get their residents online.

Services the partnership offers include:

- an internet connection and affordable computer;

- installation of the service;
- support to help housing providers educate tenants, from getting started to using the internet; and
- a bespoke helpdesk solution designed for the specific needs of tenants (BT, 2014).

BT markets the service primarily to housing providers, stating that they “could save more than £340 million per year by moving to more cost-effective ways of communicating (such as email or online chat) with their 9.5 million residents” (BT, 2014). This suggests a strong understanding that connecting social housing residents to broadband is beneficial for both the residents and the providers.

# Stakeholder and resident surveys

In order to gauge an understanding of service demand, availability, affordability and resident readiness, two distinct studies were conducted by Infoxchange: one with stakeholders, the second with social housing residents.

## Stakeholder interviews and survey

Stakeholders included Internet Service Providers (ISP), government departments responsible for public housing and services, community service organisations, and tenant representative groups. Twenty-six stakeholders were interviewed by telephone, and also provided with a written survey, in September 2015.

The stakeholders group were interviewed regarding the suitability of current broadband products, and to gain an understanding of the context of broadband for social housing residents. The stakeholder survey was designed to support the interview process and develop a deeper understanding of broadband perceptions. It was circulated to stakeholders, who answered based on their personal expertise and experience, rather than on behalf of their organisations.

Of the stakeholder respondents, 23% were from a government department or agency, 42% were from a broadband retailer and 23% represented social housing residents, with the remaining 12% classified as 'other'. The researchers did invite representatives of NBN Co to take part, but they declined. A breakdown of stakeholder types is provided in Table 1.

**Table 1: Stakeholders interviewed and surveyed**

Stakeholder	Number	%
Government department or agency	6	23
Broadband retailer	11	42
Community service organisation	3	12
Housing provider	2	7
Residents' group	1	4
Other	3	12

The views expressed during the interviews aligned broadly with the findings in the stakeholder survey data. Combined, they provide the researchers with a degree of understanding in relation to affordability and perceived benefit of broadband.

## Demand for broadband

The stakeholder survey canvassed views on the availability and affordability of broadband products and confirmed the view that access to the internet is now an essential service.

The stakeholders' view of residents' demand for broadband related to the benefits or perceived benefits through improved service delivery. A community housing provider observed:

*Also it helps with longer term housing as a lot of people are in temporary or transient accommodation especially mobile access and these have the highest needs in terms of access – i.e. accessing rental notices and the need to compete in the rental market.*

One housing provider saw the benefits as much more than purely transactional, or for government engagement:

*They definitely will benefit and some ways we see are –*

- *Partly... it's business operations for us – and we engage better and more by web and phone*
- *We see online as a means of breaking down isolation and a risk that as more of life goes online or digital that public housing residents already isolated become more so*
- *Government is doing more business this way especially transactions*
- *It will benefit kids through education*
- *Because of large cultural diverse populations in social housing those with OS [overseas] families can remain connected."*

This was echoed by at least one residents' group, which also spoke of the benefits for families and education:

*They really need access to online services like government departments, and it would help them to be able to access some of the shopping services, so they can actually work out what a better deal is. They don't have to travel and get around, and ring on the phone, do all that sort of stuff, so in fact they could save a little money shopping online, or by using some of those online facilities, doing some of that benchmarking stuff and also for research, for kids to do their homework and educational stuff. Even connection with your sporting clubs. It's absolutely paramount, and every day that passes, we use the internet to find out things, and that's a really important thing that they're missing out on.*

The stakeholders also articulated access barriers besides affordability including skills, language and the built environment.

There seemed to be alignment between the residents' group and community housing stakeholders that the internet was hard to learn to navigate and use, and that government had a critical role in facilitating skills acquisition and learning for people in social housing. They also felt that existing local community-focused organisations such as libraries, local government, schools and TAFE should be important allies:

*We should connect to existing programs such as Go Digi, Tech Savvy Seniors and Broadband for Seniors, and it should be promoted so people feel comfortable.*

– Community Housing Provider

Some also saw that free Wi-Fi in public spaces could encourage more use of the internet with a flow-on impact in skills development.

*Local government should move into the free Wi-Fi space.*

– Community Housing Provider

Finally, the physical or built environment was also identified as a barrier and emerged in the interviews without direct questioning. The tenants' representatives were very cognisant of the nature of the buildings. Factors such as thickness of concrete, distance from cabling infrastructure, availability of ducting and the internet infrastructure in high rise apartments and broad acre estates came to the fore very quickly:

*Wireless will be difficult (if not impossible) due to concrete walls and metal infrastructure.*

– Broadband Retailer

*It [broadband] should be mandatory in all new developments and buildings.*

– Community Housing Provider

General attitudes to broadband access by stakeholders are collated in Table 2.

**Table 2: Stakeholder survey responses by percentage**

User perception	Agreed	Disagreed	Neutral	No response
Broadband access should be affordable	82	4	0	15
Broadband is an essential service	85	4	4	7
Public Wi-Fi should be free and universal	59	15	19	7
Using the internet is easy to learn without help	7	70	7	15
There are enough internet options for Australians of all incomes	19	63	11	7
NBN Co is a premium product	56	7	30	7
Low income customers are well catered for	7	67	11	15
People should be able to donate unused data to others	59	7	19	15
The USO should be amended to include broadband	56	4	33	7

## Affordability

Affordability was acknowledged as a barrier by most stakeholders, including retailers, and valid questions arose as to what actually is 'affordable' for various people:

*Difficult question, but we can tell you that \$50 a month is a big barrier for someone who is on a government benefit and a quarter of that goes in rent.*

– Community Housing Provider

*There need to be options for people on low income that match their income spends e.g. having flexible packages, no contracts and pay for what you use.*

– Residents' Group

*Something that doesn't jeopardize their lifestyle. So we know for example that a rate at which they can spend without compromising, without sacrificing something that's important.*

– Residents' Group

Broadband retailers expressed views as to how the cost barrier could be alleviated, especially with respect to contracts and the provision of flexible options:

*Lock-in contracts are actually a barrier. If a person on low income defaults, you never see them again as a customer – so in effect by having [lock-in] contracts you end up with a reverse customer loyalty.*

*For people on low income you need to value add to the traditional service in the form of assistance with billing, facilities and support.*

*Cost of entry is a barrier for people in public housing.*

One broadband retailer also felt that ISPs could design plans that allowed for the recovery of their costs over a longer period for these consumers. This would reduce the cost of plans, making them more affordable, and meet the needs of these consumers better, while still being profitable for the providers:

*Instead of planning a return for three to six months we could push that out to nine or even twelve months. It then appears in our budget targets with longer timeframes and hence more chance for us as a retailer to hit those targets.*

The residents' group saw beyond this to potential investment in future customers:

*If you are a service provider that is an ethical service provider, that wants to actually expand its market, and is looking at a 20-30 year horizon, those kids that are growing up in public housing now, that get a good deal and their parents are looked after, any help they get, when their kids grow up, the kids aren't going to be living in public housing, the kids are going to be the corporate high-fliers, and they're going to have a knowledge of who's actually helped them on the journey. So they will have loyalty.*

Other flexible ways to improve use of broadband were also proposed, including shared allocation of data across groups and ability to use unused data allowances. A strong sense that 'you should get what you pay for' emerged from the responses of the residents' groups and housing providers:

*Reduction on next month if able to carry over unused data.*

– Community Housing Provider

*Data could be put into a pool and redistributed.*

– Community Housing Provider

*Another solution could be group buying or cooperative bandwidth purchasing.*

– Residents' Group

The residents' groups and housing providers also raised possibilities of accessing school internet accounts at home to support educational outcomes, or that it be included in a 'low income services package'.

Stakeholders agreed strongly that internet access is essential and now seen as a right – not a luxury. The agreement that services be affordable would appear to be overwhelming, with 81.5% agreeing that internet access should be affordable, and 85% saying that it is an essential service.

This contrasts with the reality of the resident's survey results, where around a third (34%) of respondents felt that the internet actually was affordable for them, and fitted their budget.

Free and universal access to Wi-Fi was proposed by some stakeholders. Even retailers considered that there were insufficient internet options for people on low incomes.

The stakeholder responses were moderately in favour of amendments to the USO to include internet access.

A large number of stakeholders felt that the internet was not easy to learn to navigate or use without help (70%) and suggested that effective uptake of online services would require targeted learning interventions for government departments to achieve the benefits from converting housing related processes to online mechanisms.

## **Resident survey**

A survey of residents was undertaken to understand home internet connection status, technology usage and attitudes and perceptions about the affordability and importance of a home internet connection.

Residents' groups such as the Victorian Public Tenants Association and social housing providers such as Hume Community Housing in Sydney were identified, and 1000 hard copy surveys distributed along with an online link to the survey.

The survey data from social housing residents was collected between July and December, 2015. The data was analysed to identify any connection between demographic characteristics, technology access and use, and perceptions of broadband affordability. Not all questions were completed by all participants, thus not all totals add to 100%. Although the sample size ( $n=87$ ) is small, it does provide a snapshot of social housing residents' experience of online services. The number of respondents who have completed a university course is higher than the general population; this bias may be due to self-selection of participants. The respondents were also predominately female. These differences between the respondents and the average resident in social housing as identified in the literature review may affect the interpretation and application of the results.

Respondents were mainly from community housing, which is the second biggest delivery program of social housing. Given the differences in the demographics of the different

programs, the results presented here may not be completely reflective of residents living in social housing delivered under other programs. Household composition, however, was found to be in line with the community housing results from the literature review.

#### **Age of survey respondents**

- 60% were aged 35 to 64
- 27% were 65+
- 7 % were 18-34
- 6% were under 18

#### **Gender**

- 80% were female
- 20% were male

#### **Cultural and linguistic background**

- 78% of respondents spoke English as a first language

#### **Social housing**

- 27% from public housing
- 64% from community housing
- 1% from SOMIH
- 8% other or don't know

#### **Household composition**

- 58% of respondents lived alone
- 18% lived with dependent children
- 15% other family or shared household
- 8% of respondents lived with partner

#### **Location**

- 46% of residents lived in an inner metropolitan area
- 31% lived in an outer metropolitan area
- 15% lived in a regional city and inner regional city
- 6% lived in an inner regional area close to a city
- 1% living in an outer-regional area or remote area

#### **Duration of residency in social housing**

The length of time living in social housing was quite evenly spread: 36.5% of respondents had lived in social housing for fewer than five years, 27% lived between five and ten years and 36.5% had lived in social housing for more than ten years.

#### **Education level**

Respondents' education levels ranged from not completing high school to holding a university-level qualification. As a group, respondents had on average a high level of education relative to the general population, with 31% holding a university-level qualification and another 30% having a TAFE or equivalent qualification. Twelve percent had completed high school, and another 24% had not. It is worth noting that this result does not correspond with that reported in AIHW, 2015.

## Demand for broadband

Residents were found to have a lower than average rate of broadband service connectivity (76.5%), compared to the general population (86% – ABS, 2016). Previous ABS studies have indicated that lower income and older age are likely determinants in internet usage. The lower rate of use found in this survey may support this. Wired broadband was the most popular service (64%) followed by mobile internet (17% - see Table 3).

**Table 3: Type of internet connection at home**

Internet connection type	%
Dial-up	2
Wired broadband (ADSL or HFC cable)	64
NBN	5
Mobile internet	17
Don't know	13

Only 4% of residents thought that internet was unnecessary, with 49% seeing it as essential. While connectivity is low, most of the residents who responded rate internet access at home as being essential or desirable (Table 4).

**Table 4: Residents' opinion on internet access at home**

Importance of internet at home	%
Essential - I couldn't live without it	49
Desirable - it's good to have, and I enjoy using it	28
Necessary - I wouldn't have it if I didn't need to	19
Unnecessary - I don't want or need it	4

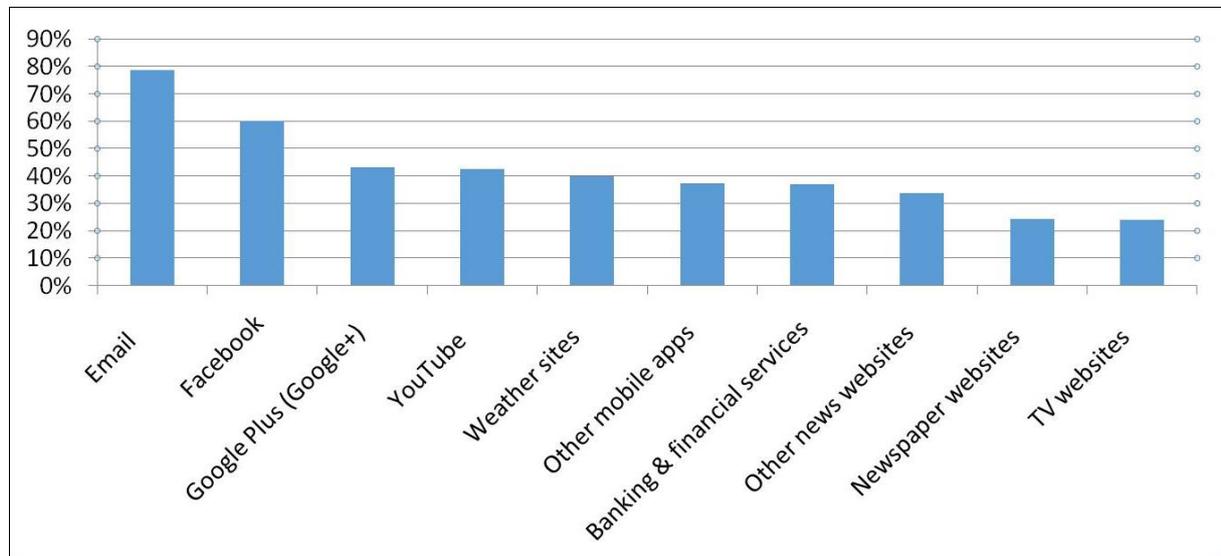
For those residents who had the internet at home, a monthly plan was the most frequent payment option (76%), followed by pre-paid (11%).

Demand was further explored by looking at how the respondents were using various online products and services.

Responses indicate caution in undertaking activities which require intensive bandwidth like streaming services and uploading photos. Given that many streaming services operate by subscription, it is difficult to conclude whether this is directly linked to affordability or caution around exhausting data allowances.

Communication and general information sites/applications such as email and Facebook received high usage, and 37% of residents said that they used banking and financial service sites.

Most respondents used at least one website daily; those reported as the top 10 most frequently visited sites (from 1-3 times per week, up to multiple times per day, depending on the user) are shown in Figure 4.



**Figure 4: Respondent site usage**

Many residents accessed the internet on multiple devices, as shown in Table 5.

**Table 5: Devices used for internet access**

Internet access device	%
Laptop	56
Desktop	46
Smartphone	65
Tablet	27
Smart TV	9
Games Console	4

Most residents considered themselves capable of troubleshooting any problems they encountered either by themselves (35% of respondents), by reaching out to family and friends (15% each) or asking a professional to find the problem and fix it (15%). Only 4% did nothing when they encountered a problem and stopped using the device.

These results support the idea that residents have a high degree of resilience when it comes to using the internet and solving issues.

## Affordability

Many respondents saw the internet as essential to their lives, with many daily users accessing multiple sites. Despite this, a majority stated their internet connection to be unaffordable with only 30% saying it fitted inside their budget (see Table 6). Forty per cent of respondents found that paying internet bills wasn't always easy, with a further 12% indicating they struggle to pay them regularly. It is concerning that affordability is of concern for more than half of respondents, potentially threatening their capacity to stay connected.

It is of concern that seven percent of residents indicate they do not have any internet connectivity because of cost.

**Table 6: Residents' responses to internet affordability**

Internet bill affordability	%
Affordable - it fits in my budget	30
Only just affordable - I manage to pay them, but it isn't always easy	40
Expensive - I struggle to pay them regularly	12
Too expensive - I choose not to have internet because of the cost	7
Didn't answer	11

Residents were also asked how much they could afford to pay per month for an internet connection. The results varied dramatically, but the majority ranged in price from \$20 to \$59.99 per month.

Despite high internet use in general, and high mobile device usage among these residents, only 22% of respondents used public or free internet. For those who did use shared internet services, the most popular places were at free public Wi-Fi spots such as libraries and fast-food restaurants like McDonalds.

For those who used *mobile* internet access, 53% said that internet bills were 'only just affordable'. A further 19% who used mobile internet said it was expensive or too expensive. This may indicate that despite its cost, mobile data is seen by residents as a necessary part of life, and that they are prepared to pay the higher cost that allows them to be mobile connected. Explanations may range, such as convenience, lack of household ICT equipment, lack of knowledge of product and service options, or even personal perceptions of housing stability and therefore viability of household connections.

# Conclusions

This study highlighted the desirability of a universally available broadband network to support 'digital first' government services. Government departments are increasingly moving over to online service delivery, yet survey data indicates a significant unmet need for reliable broadband access in social housing.

It is clear that a vision of a digitally-inclusive Australia exists at an aspirational level; however, the policy to make this aspiration viable is missing. Gaps remain in targeted policy goals for segments within the community such as social housing residents; no specific policy or program addressing this sector could be identified in this review. This suggests an underlying assumption that the provision of infrastructure (whether via the NBN or otherwise) will be sufficient to close the digital divide, without it being necessary to develop associated policies to realise this goal.

The federal government, through its 'Statement of Expectations', has asked NBN Co to prioritise under-served premises. Social housing has not been explicitly identified as a class of dwellings that require prioritisation in connection; however, available data shows low levels of broadband infrastructure in social housing so there is merit in doing so.

One complication arises from policies transferring ownership of the assets from governments to community housing providers through vesting. The question of whether it is the owner of the asset or the manager of the housing service who is responsible for informing tenants about NBN services and providing connection is unresolved. As the rate of transfer is predicted to increase, resolving the question of who is responsible for making – and paying for – connections is crucial to any policy outcomes.

This study also points to the policy gaps in making broadband more accessible and affordable for social housing residents. Data shows that residents of social housing, once they acquire tenancies, occupy them for reasonably lengthy periods. This would indicate the potential for lower cost products where a return on investment is calculated over a longer period. There is scope for residents and residents' groups to contribute to developing products and services and finding new ways of reaching the social housing resident market.

There is a case for the creation of 'public interest premises' where services are set up using contracts between housing providers and broadband access providers over the longer term; the end users could then take up flexible, low-cost, pay-as-you-go products. Consideration could also be given to the establishment of integrated facilities in social housing complexes – a sort of 'MyGov café' approach – that at least provides access to the online services governments want residents to use.

A better understanding of how people on low incomes in social housing can take full advantage of shared internet and free Wi-Fi in various settings would also be useful. It may be necessary to examine the level of skill, confidence, literacy and numeracy needed to connect into these free services.

It is reasonable to conclude that people on low incomes with statistically lower levels of education will find complex connection pathways difficult to navigate; therefore, housing providers will find it difficult to realise efficiency benefits without tailoring service platforms to this demographic. This could be related to broader financial literacy issues and a general ability to manage finances. There may be other issues around comprehension of the detail of the plans they may have signed up for, leaving questions about the affordability of current commercial broadband products. Understanding these questions more fully would guide targeted learning interventions to increase affordability from the social housing resident's financial management perspective.

There is also no clear policy underpinning the necessary development of digital literacy skills to achieve the optimum 'digital first' implementation. Determining the nature of training that may be needed in order for social housing residents to be able to meet government goals – or requirements – for digital interaction and service provision is essential.

The value of the internet as a service is acknowledged across stakeholders involved with the provision and occupation of social housing. The vast majority of stakeholders agree that internet access is essential and should be affordable, with more internet options available for people on low incomes. Similarly, most residents see the internet as essential to their lives, with many being daily users of more than one site, so affordability remains as significant an issue as connection and accessibility.

# Authors

## Infoxchange

Infoxchange is a not-for-profit social enterprise that has delivered technology for social justice for over 25 years. Infoxchange's community programs focus on digital inclusion, and use technology to improve the lives of vulnerable people, driving social inclusion and creating stronger communities. Infoxchange believe no-one should be left behind in today's digital world.

## Brendan Fitzgerald

Brendan is the Manager, Digital Inclusion, at Infoxchange, responsible for a number of ground-breaking programs aimed at improving digital skills and knowledge for Australians who lack the confidence to get online. Brendan has extensive experience in developing and delivering community-based IT programs. Before joining Infoxchange, he was a member of the senior management team at the State Library of Victoria, where he led the Vicnet division – one of the pioneers of the internet in Australia.

## Tegan Kop

Tegan is passionate about social justice and how we can utilise technology to create a better world for everyone. She's a leading digital inclusion expert in Australia and staunchly believes that when we all work together, we work best.

## Daniel Salmon

Daniel Salmon is a communications professional and broadcaster. He is currently part of the Marketing and Communications team at Infoxchange and a regular contributor to the *Byte Into IT* digital technology program on Melbourne community radio station 3RRR. He has a background in policy, research and architectural design, having previously held communications roles at the Victorian Public Tenants Association and the Australian Housing and Urban Research Institute, and academic and administrative roles at Swinburne and Monash Universities. He is passionate about ensuring that everyone is able to participate in the digital community, and that our digital infrastructure and built environment is designed to facilitate this.

## Julie Tucker

Julie Tucker is a PhD student at Swinburne University's Centre for Social Impact. Julie has worked as a researcher in both NSW and Victoria. Her recent research includes the *Digital Age Project*, an investigation into strategies that enable the digital inclusion of older social housing residents and *Dusted and Connected*, a research project designed to explore the potential of an online, peer-to-peer community to enable women and men affected by asbestos-related disease throughout Australia to share their knowledge and experience.

Most recently she has worked as part of the multidisciplinary research team responsible for the development of the Australian Digital Inclusion Index.

## **Australian Communications Consumer Action Network**

ACCAN is Australia's peak communications consumer organisation representing individuals, small businesses and not-for-profit groups as consumers of communications products and services. It aims to empower consumers to make good choices about products and services, and represents consumer views to policy makers, government and industry.

### **Narelle Clark**

Narelle is a highly regarded Internet and telecoms systems strategist with over 20 years' experience in network engineering, research and management having held positions at CSIRO, Optus, Vodafone and universities as well as consulting with state and federal governments, overseas telcos and aid agencies prior to joining ACCAN as Deputy CEO. Narelle is the immediate past President of the Australian Chapter of the Internet Society and has recently completed a term on its global Board of Trustees.

### **Rachel Thomas**

As Policy Officer for ACCAN, Rachel has worked on a diverse range of areas including the universal service obligation, broadband policy and issues related to the National Broadband Network. She also produces consumer education material, and has previously worked as an Economic Administrative Officer with the Irish Government, in the Economic Evaluation Unit.

### **Tanya Karliychuk**

Tanya administers the ACCAN Grants Scheme, including project management of grant and commissioned research projects, ensuring outcomes from these two streams integrate into ACCAN's policy objectives. She has experience in both winning and managing large grant-funded international development projects, plus roles in ethics and research development at a number of universities.

# References

- Australian Bureau of Statistics 2013, *Housing Occupancy and Costs 2011-2012*, [http://www.ausstats.abs.gov.au/ausstats/subscriber.nsf/0/F7B1C824CA185E15CA257BD40015751E/\\$File/41300\\_2011-12.pdf](http://www.ausstats.abs.gov.au/ausstats/subscriber.nsf/0/F7B1C824CA185E15CA257BD40015751E/$File/41300_2011-12.pdf), accessed 25/05/2015
- Australian Bureau of Statistics 2014, *Household Use of Information Technology, Australia 2012-13*, 8146.0, <http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/8146.0Chapter12012-13>, accessed 06/07/2015
- Australian Bureau of Statistics 2016, *Household Use of Information Technology, Australia, 2014-15*, 8146.0, <http://www.abs.gov.au/ausstats/abs@.nsf/mf/8146.0>, accessed 18/07/2016
- Australian Capital Territory Government 2015, 'Connected Community, Connected Government: Opportunities for e-Services Delivery in the ACT', *ACT Open Government*, [http://www.cmd.act.gov.au/open\\_government/report/connected\\_community\\_connected\\_government](http://www.cmd.act.gov.au/open_government/report/connected_community_connected_government), accessed 30/05/2015
- Australian Communications and Media Authority 2015, 'The USO and the NBN', *ACMA Website*, 21 May <http://www.acma.gov.au/Citizen/Consumer-info/My-connected-home>, accessed 10/07/2015
- Australian Government Information Management Office 2013, 'Digital First and the APS ICT Strategy', *AGIMO Blog*, <http://www.finance.gov.au/blog/2013/06/13/digital-first-and-aps-ict-strategy/>, accessed 27/07/2015
- Australian Institute of Health and Welfare 2010, *A profile of social housing in Australia*. Cat. no. HOU 232. Canberra: AIHW
- Australian Institute of Health and Welfare 2013, *Housing Assistance In Australia*, p.10, <http://www.aihw.gov.au/WorkArea/DownloadAsset.aspx?id=60129545051>, accessed 19/05/2015
- Australian Institute of Health and Welfare 2014, *Housing Assistance in Australia*, p.29, <http://www.aihw.gov.au/publication-detail/?id=60129549029>, accessed 08/06/2016
- Australian Institute of Health and Welfare 2015, *Social housing tenants*, <http://www.aihw.gov.au/housing-assistance/haa/2015/social-housing-tenants/>, accessed 14/4/2016
- Australian Population and Migration Research Centre 2015, *ARIA (Accessibility/Remoteness Index of Australia)*, Adelaide, [http://www.adelaide.edu.au/apmrc/research/projects/category/about\\_aria.html](http://www.adelaide.edu.au/apmrc/research/projects/category/about_aria.html), accessed 28/05/2015
- British Telecom 2014, 'Making Broadband Work for your tenants', BT Online, [http://business.bt.com/assets/pdf/digital-inclusion-customer-brochure.pdf?s\\_cid=btb\\_CFURL\\_business/digitalinclusion](http://business.bt.com/assets/pdf/digital-inclusion-customer-brochure.pdf?s_cid=btb_CFURL_business/digitalinclusion), accessed 03/06/2015
- Campbell, S. et al 2013 *Broadband Impact and Challenges: Realising the benefits from the digital economy*, Australian Centre for Broadband Innovation, CSIRO EP1312215

Carrier Licence Conditions (Telstra Corporation Limited) Declaration 1997, <https://www.legislation.gov.au/Details/F2015C00031>, accessed 30/08/2016

Chief Minister 2014, *Digital Canberra: A leading digital city. Action Plan 2014-2018*. ACT Government, <http://www.cmd.act.gov.au/policystrategic/digitalcanberra/actionplan>, accessed 30/08/2016

Commonwealth of Australia, Senate Standing Committee on Environment and Communications 2014, 'Additional Estimates Hearings February', *Answers to Senate Estimates Questions on Notice*, February 2014, [http://www.aph.gov.au/~media/Committees/ec\\_ctte/estimates/bud\\_1415/Communications/answers/q342.pdf](http://www.aph.gov.au/~media/Committees/ec_ctte/estimates/bud_1415/Communications/answers/q342.pdf), accessed 13/07/2015

Conroy, S. 2009, *New National Broadband Network*. Australian Government: Canberra, [http://www.minister.dbcde.gov.au/media/media\\_releases/2009/022](http://www.minister.dbcde.gov.au/media/media_releases/2009/022), accessed 26/05/2015

Council of Australian Governments (COAG) 2009a, *National Affordable Housing Agreement*, <http://www.coag.gov.au/node/305>, Canberra, accessed 26/05/2015

Council of Australian Governments (COAG) 2009b, *National Partnership Agreement on Remote Indigenous Housing*, <http://www.coag.gov.au/node/365>, Canberra, accessed 26/05/2015

Department of Broadband, Communications and the Digital Economy 2009, *National Broadband Network: Regulatory Reform for 21st Century Broadband Discussion Paper*, Commonwealth of Australia, Canberra, [http://www.accc.gov.au/system/files/SSD2\\_6%20DBCDE%20Discussion%20Paper%20April%202009.pdf](http://www.accc.gov.au/system/files/SSD2_6%20DBCDE%20Discussion%20Paper%20April%202009.pdf), accessed 25/05/2015

Department of Communications 2015, 'Phone bills and charges', *Department of Communications website*, <https://www.communications.gov.au/what-we-do/phone/phone-bills-and-charges>, accessed 04/07/2015

Department of Communications and the Arts 2016, 'A competitive telecommunications regime for Australia', *Department of Communications and the Arts website*, <https://www.communications.gov.au/policy/policy-listing/competitive-telecommunications-regime-australia>, accessed 18/08/2016

Department of Health and Human Services Victoria 2011, 'Construction Standards', *Housing Standards Policy Manual*, Chapter 2, <http://www.dhs.vic.gov.au/about-the-department/documents-and-resources/policies,-guidelines-and-legislation/asset-standards-manual/housing-standards-policy-manual-ch-02-construction-standards>, accessed 03/06/2015

Department of Housing and Public Works, Queensland Government 2016a *Product Standards Social Housing Dwellings: Minimum standards for building products, fixtures, fittings and other items typically required in dwellings*, <http://www.hpw.qld.gov.au/SiteCollectionDocuments/ProductStandardsSocialHousingDwellings.pdf>, accessed 19/10/2016

Department of Housing and Public Works, Queensland Government 2016b, *Rollout of the NBN Co Network*, <http://www.hpw.qld.gov.au/SiteCollectionDocuments/NBNcoRollout.pdf>, accessed 19/10/2016

Department of Human Services 2016, 'Telephone Allowance', <https://www.humanservices.gov.au/customer/services/centrelink/telephone-allowance>, accessed 01/09/2016

Department of the Premier and Cabinet 2015, *Annual Report 2008-2009 – e-Government Policy and Coordination*. Government of Western Australia, <https://www.dpc.wa.gov.au/Publications/AnnualReports/Pages/AnnualReport2008-2009-e-GovernmentPolicyandCoordination.aspx>, accessed 30/08/2016

Department of Premier and Cabinet 2011, Office of eGovernment. <http://www.dpac.tas.gov.au/divisions/egovernment>, accessed 30/08/2016

Department of Science, Information Technology, Innovation and the Arts 2013. *Queensland Government ICT strategy 2013–17*. State of Queensland. Retrieved from <https://www.qld.gov.au/dsiti/assets/documents/ict-strategy.pdf> , accessed 30/08/2015

Digital Transformation Office 2015a, 'Digital Service Standard', *DTO Online*, <https://www.dto.gov.au/standard>, accessed 14/08/2015

Digital Transformation Office 2015b, 'About Us', *DTO Online*, <https://www.dto.gov.au/about>, accessed 15/06/2015

Dowd, B. 2014, 'Digital by Default: Bold Ambition, Timid Execution', *The Telegraph*, October 4, <http://www.telegraph.co.uk/technology/internet/11139691/Digital-by-default-bold-ambition-timid-execution.html>, accessed 06/07/2015

Ewing, S. Australian Digital Inclusion Index 2016, New data on digital inclusion from the ABS Household Use of Information Technology, 2014-15, *Policy Online*, <http://apo.org.au/resource/new-data-digital-inclusion-abs-household-use-information-technology-2014-15> , accessed 12/04/2016

Family & Community Services 2014, *Design Standards*, NSW Land and Housing Corporation, <http://www.housing.nsw.gov.au/social-housing/building-design-and-product-requirements>, accessed 13/06/2016

Housing ACT 2013a, *Fact Sheet – National Broadband Network*, [http://www.communityservices.act.gov.au/data/assets/pdf\\_file/0008/645686/Fact-sheet-National-Broadband-Network.pdf](http://www.communityservices.act.gov.au/data/assets/pdf_file/0008/645686/Fact-sheet-National-Broadband-Network.pdf) , accessed 19/10/2016

Housing ACT 2013b, *National Broadband Network – important information from Housing ACT*, [http://www.communityservices.act.gov.au/hcs/publications/fact\\_sheets/national-broadband-network](http://www.communityservices.act.gov.au/hcs/publications/fact_sheets/national-broadband-network), accessed 19/10/2016

Housing SA 2013, 'Minimum Design & Construction Specification for Class 1 Buildings', *Housing Design Guidelines*, <https://www.sa.gov.au/topics/housing-property-and-land/housing/public-and-community-housing/tenants/maintenance-of-public-housing/home-improvements-in-public-housing>, accessed 03/06/2015

Housing Technology & Race Online 2012, *Digital by Default 2012: The Case for Digital Housing*, <http://www.housing-technology.com/research/digital-default-2012/>, accessed 06/07/2015

Lewin, D.; Milne, C. 2010. 'Are telecommunications services universally affordable across the EU? An independent assessment for Vodafone', Plum Consulting, [http://www.plumconsulting.co.uk/pdfs/Plum\\_Nov2010\\_Affordability\\_of\\_telecommunications\\_services.pdf](http://www.plumconsulting.co.uk/pdfs/Plum_Nov2010_Affordability_of_telecommunications_services.pdf) , accessed 08/09/2016

Liberal Party of Australia 2013, 'The Coalition's Policy for E-Government and the Digital Economy', [http://www.malcolmt Turnbull.com.au/assets/Coalitions\\_Policy\\_for\\_E-Government\\_and\\_the\\_Digital\\_Economy\\_\(2\).pdf](http://www.malcolmt Turnbull.com.au/assets/Coalitions_Policy_for_E-Government_and_the_Digital_Economy_(2).pdf), accessed 07/06/2015

Low-income Measures Assessment Committee 2014, *Report to the Minister 2013*, Melbourne, <https://www.telstra.com.au/content/dam/tcom/about-us/community-environment/pdf/2013-report-minister.pdf>, accessed 09/06/2015

Ludlam, S. 2014, 'NBN Co Rollout and Public Housing', *Greens MPs*, April 23, [http://scott-ludlam.greensmps.org.au/content/questions-notice/NBN\\_Co-rollout-and-public-housing](http://scott-ludlam.greensmps.org.au/content/questions-notice/NBN_Co-rollout-and-public-housing), Accessed 15/07/2015

NBN Co 2014, *NBN Co Corporate Plan 2014 – 2017*, <http://www.nbnco.com.au/content/dam/nbnco2/documents/nbn-co-corporate-plan-2014-17-Nov11.pdf>, accessed 03/06/2015

Office for Digital Government 2016, *South Australia Connected - Ready for the Future*. Government of South Australia, [http://digital.sa.gov.au/sites/default/files/content\\_files/strategy/SA-Connected-Strategic-Directions-Update-Apr2016.pdf](http://digital.sa.gov.au/sites/default/files/content_files/strategy/SA-Connected-Strategic-Directions-Update-Apr2016.pdf) , accessed 30/08/2016

Office of Finance and Services 2014, *Digital +: NSW Government ICT Strategy Update 2014-2015*. Government of New South Wales, <http://www.finance.nsw.gov.au/ict/>, accessed 30/08/2016

Price, N. 2014, 'Public housing residents get country's fastest internet with a little help from the Greens', *Melbourne Leader*, September 15, <http://www.heraldsun.com.au/news/public-housing-residents-get-countrys-fastest-internet-with-a-little-help-from-the-greens/news-story/8b3407e14f3602c1eb39fe429de1b0b5>, accessed 11/08/2015

Regional Telecommunications Independent Review Committee 2015, 'Regional Telecommunications Review 2015', p.xiii, <http://www.rtirc.gov.au/wp-content/uploads/sites/2/2015/10/RTIRC-Independent-Committee-Review-2015-FINAL-Low-res-version-for-website.pdf>

Seton, C., Tucker, J. & van der Zwan, R. 2015, *The Digital Age Project: An Investigation into Strategies Needed to Enable Older Residents in Social Housing to Use the Internet*, Australian Communications Consumer Action Network, Ultimo

Sourbati, M. 2009, ' "It could be useful, but not for me at the moment": older people, internet access and e-public service provision', *New Media & Society*, Vol. 11(7)

State of Victoria 2011 *Victoria's Technology Plan for the Future: Information and Communication Technology*, Department of Business and Innovation, <http://dsdbi.vic.gov.au/our-department/strategies-and-initiatives/victorias-technology-plan-for-the-future-information-and-communication-technology>, accessed 17/08/2015

UK Government 2014, 'Government Digital Inclusion Strategy', <https://www.gov.uk/government/publications/government-digital-inclusion-strategy/government-digital-inclusion-strategy>, accessed 04/07/2015

Western Australia Department of Housing 2013, 'Affordable Housing Minimum Specification', *Government of Western Australia Housing Authority Online*, [http://www.dhw.wa.gov.au/HousingDocuments/Affordable\\_Housing\\_Specification\\_Oct\\_2012.pdf](http://www.dhw.wa.gov.au/HousingDocuments/Affordable_Housing_Specification_Oct_2012.pdf), accessed 03/06/2015





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