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Submission to the Regional Telecommunications Review 2018

The Isolated Children's Parents' Association Qld Inc. (ICPA Qld) advocates for equitable access to quality educational opportunities for children in rural and remote areas. ICPA Qld represents 46 branches, comprising over 1200 families throughout rural Queensland.

ICPA Qld is a voluntary apolitical parent organisation and is the only community based parent group with interests in all sectors and levels of education – state schools, independent, church or boarding schools, early childhood and care through to tertiary education and all methods used to facilitate access to that education.

The Queensland State Council of ICPA Qld welcomes the opportunity to respond to the Regional Telecommunications Review (2018) Issues Paper focussing on the unique needs of rural and remote students.

Introduction

ICPA Qld Inc acknowledges and thanks the Federal Government for its commitment towards modernising the telecommunications environment in Australia through a variety of programmes – nbn™ Fixed Wireless, Sky Muster Satellite and Mobile Black Spot Funding. These advances have significantly improved outcomes for many regional, rural and remote customers. Notwithstanding this progress, ICPA Qld believes there are indeed more than 'some' challenges (as quoted in Paragraph 4 of the Introduction chapter of the Issues Paper) remaining in regional and remote Australian to reach the much mooted transformative telecommunications market.

Significant work to deliver, maintain and upgrade reliable and robust systems in regional and remote Australia still needs to be undertaken to allow residents, businesses and students access to a true metro-comparable services in order to participate in, as well as benefit from, the possibilities and potential telecommunication technology offers.

While ICPA Qld acknowledges that its members use telecommunication and digital technology for a variety of purposes – health and safety, business and social connectivity, our Submission will focus on the area of education and the need for an equitable access for students to a high quality learning experience regardless of their location. Our Submission will also focus on the current and future needs of Queensland students as this is ICPA Qld's main scope of reference.

Key Areas of Interest

In the Issues Paper's Key Areas of Interest section, one of the opening statements refers to 6.67 million Australian adults having only a mobile phone and fixed line telephone at home. It is important for the Committee to understand that very few of these adults would be living in rural and remote Australia as mobile coverage is simply not available. For these residents, the primary, and often only method, of telephony is the landline. Therefore ICPA Qld considers the provision and maintenance of a landline facility, supported by a robust Universal Service Guarantee (USG), is imperative in these areas.

For Queensland distance education students in the satellite footprint, the landline is the most important asset in the home classroom. It ensures daily access to student's teacher and class, even when the internet fails. Member feedback indicates that there are still significant issues with the reliability and quality of service of the nbn™ Sky Muster programme. Two of these challenges are its susceptibility to weather events and the latency issues associated with voice over satellite technology, namely:

1. During wet and overcast weather, which in northern Australia can be quite frequent in the annual 'wet season', members have reported being without internet for extended periods. Sky Muster seems to be extremely sensitive to cloud-shading and can drop out due to overcast weather anywhere in the beam (this year customers in Qld lost coverage for several hours due to a storm in Western Australia). Notwithstanding the impact on education, if consumers had to rely on internet to meet their telephony needs, it appears evident that it would be non-existent at a time when it would be most needed. The safety of life concerns for those on isolated properties is extremely alarming.

2. Latency issues associated with satellite based voice technology is also extremely problematic, particularly for students in a classroom setting accessing lessons remotely. It is acknowledged that the Sky Muster satellites were never designed to provide voice services, only broadband services. The delay for students utilising VOIP on a satellite internet connection is significant due to the double hopping required to carry voice over the satellite. Member feedback indicates that in many instances, VOIP over satellite in its current form means lessons are disrupted at best and impossible at worst.

Q1. What are the main barriers to people in regional communities increasing their use of digital technologies and possible solutions for overcoming these barriers?

The current landline service, High Capacity Radio Concentrator (HCRC), in much of rural and remote Australia is aging and no alternative has been planned or prepared to ensure continuity of service. Accordingly, increasing issues with outages and repair times have occurred. Due to a lack of trained technicians and parts to make those repairs it has led to lengthy outages, in some cases lasting for months.

Sky Muster satellite, whilst a vast improvement in general, upon previous offerings, also falls short of a metro-comparable service in terms of pricing, speed, accessibility and available bandwidth. There is an absence of unlimited plans, and a compulsory peak/off peak offering (with off-peak offering an increased allowance only accessible between 1 and 7 am).

ICPA Qld suggest:

- Continued funding for the Mobile Black Spot Funding Programme (MBSP) with priority given to communities with small schools to ensure these schools have at least two means of communication;

- That only those with no other option be eligible to access Sky Muster satellite internet services. Many regional/remote towns should not be forced to move to Sky Muster should they currently have successful access to other telecommunications technology, such as ADSL. Anecdotal evidence suggests that inner regional areas or even outer metropolitan suburbs, such as Gold Coast hinterland, Atherton Tablelands or residents on the outskirts of Mt Isa, are having to access satellite internet due to unreliable alternate telecommunications offerings. Priority should be given to ensuring current offerings are improved and/or boosted to allow a wider access footprint in these "closer in" areas. Reducing and minimising numbers on the Sky Muster service will avoid congestion, and improve issues currently experienced such as slow speeds or nil accessibility during peak data usage and potentially may allow for enlarged data plans to allow increased digital engagement;

- The development of more point to point facilities to reduce the latency experienced with satellite services rendering utilisation of cloud technology unworkable;

- Assurance that, as digital technology grows exponentially across the nation, data packages grow accordingly. The reliability of service must align across all digital platforms, in particular for those on the Sky Muster service, to ensure there is no disadvantage;

- The ability to purchase education data blocks at a reduced price to add to allocated data each month as required. This would be particularly helpful if needing to use high usage services e.g. Speech Language Therapy;

- The ability to store data that is unused for the month (as with a prepaid mobile plan) so that data can be utilised during busy periods of time e.g. school holidays when secondary students are completing assignments;

- Any banked Off peak data can be converted to Peak data at a ratio of 3 gigs of Off peak converts to 1 gig of Peak data. The total banked peak data should not exceed 50 gigs.

Case Study - *We live in a social world and young people especially spend a lot of time online – social media, YouTube etc. Our staff quarters (4 people) went through just over 85.7GB of data last month. They would have used more except they aren't that keen on repeatedly getting up extra early to use the balance of the off peak. Most of the peak data was gone in the first 10 days – this is a consistent every month and then they force themselves to slow down to try and make it last but never do and then they start with the getting up early to try and use off peak data. It has been an eye opener for them about what uses data, not having free range unlimited access to do whatever they like on line e.g. download Netflix, movies, F1 race/rugby game to watch later and they struggle to curb their reliance/usage of technology. They all use wi-fi calling or the Messenger app to make calls and so running out of data impinges on this too.*

Q2. How are people in regional communities currently using their broadband services and how might they increase the benefits of using this technology

Aside from business and personal use, broadband services are being used to deliver telehealth services for early intervention to children with disabilities and learning issues. In Queensland, schools are using broadband to deliver virtual learning, deliver distance lessons that are not available within their own school and other learning platforms such as IMPACT. Isolated students are also accessing their education largely online via distance education.

Due to the fixed nature of the infrastructure available in rural and remote areas, resident's hands are largely tied when considering what is available to increase the benefits of using the technology. Improvements are largely in the hands of telecommunication companies and government, and what they are prepared to invest in regional Australia. Private providers also have an important role to play to increase the broadband on offer, however, it is vital that these providers are supported by all levels of government to ensure they can be viable.

Q3. What data-intensive activities are occurring in regional, rural and remote Australia? What digital technologies are needed for these?

In Queensland, geographically isolated and medical Distance Education K -12 students have the advantage of the Education Port. Students who attend local schools do not have access to the Education Port, even though they require significant data to complete assignments and homework, particularly in the secondary years. The Curriculum into the Classroom (aligned with the Australian Curriculum and utilised in Qld schools) is extremely digital, requiring access to resources such as YouTube. In the absence of the Education Port, these families are limited to the Fair Use Policies on Sky Muster, even though they are using the data to access education. ICPA Qld believes access to the Education Port should be extended to these students.

There is a shortfall of Allied Health professsionals and mental health support to service rural and remote students. In Queensland services are allocated by region and some students are only receiving access to services one or two times per year in some cases. The sheer demand for services like speech language therapy, coupled with vast distances between schools, has resulted in a severe shortage of face to face services. Coupled with the lack of private providers due to the tyranny of distance, the gap continues to widen.

Trials of online platforms have been marred by inadequate internet reliability and bandwidth in many small communities resulting in poor audio-visual quality of the session. Poor connectivity has therefore served to make this viable adjunct to face to face services inaccessible for many students.

Q5. What can be done to improve access to and uptake of telecommunications services in remote Indigenous communities?

Given that the majority of discrete indigenous communities are in remote Australia, increasing the variety of telecommunications offerings, including the small cell roll-out, would potentially improve educational and health related educational outcomes. Many older students are reluctant to leave country to undertake further learning. Ensuring accessible, affordable access as well as providing opportunities to increase confidence in their ability to undertake successful digital educational engagement potentially could result in residents with transferrable skills that assist in community betterment.

With the provision of suitable bandwidth, the use of Sky Muster (including Multicast) could allow educational workshops to be broadcast to other communities. These workshops could include, for example, certain aspects of VOC Ed in a bid to improve the practical and academic skills of post compulsory rural and remote students. Local community members could be trained to teach and support students, thereby closing the gap, increasing educational outcomes and providing opportunities to further the education of the entire community in a broader sense.

Q6. Are there practical examples of how communications services can improve the well-being of people in remote Indigenous communities?

Burke Shire Council, Gulf of Carpentaria NW Qld, with funding from Federal and State Governments as well as its own contributions, successfully partnered with Telstra to roll out Fibre Optic cable from Doomadgee, approx. 126km away to Burketown, with a significant indigenous population. This rollout improved for a variety of services including education, health, police and emergency services as well for small businesses and residents. The local school has been able to successfully access LOTE (Language Other Than English) services from Charters Towers School of Distance Education for its students where once such access was problematic due to an inferior telecommunications offering that was at capacity.

Q7. What skills do people need to get the most from their digital technologies, and where can they learn these skills?

For many parents tutoring their own children in the home via distance education, upskilling is necessary to provide the technology training to manage the home schoolroom and navigate the curriculum, which is highly digital. The skills required range from basic functions like attaching emails and saving documents to navigating the virtual classroom and curriculum programmes. The majority of the responsibility for providing this training should fall to the Schools of Distance Education themselves, however, other local options should also be available.

RAPAD (Remote Area Planning Development Board) is a regional initiative which has provided training and skills to many regional, rural and remote residents in areas. RAPAD partners with local councils and stakeholders and has run workshops in small communities to upskill residents on how to utilise technology. Part of this training involves upskilling of Distance Education Home Tutors. Schemes like these should be encouraged and replicated throughout Queensland and more broadly.

Q8. Have you had ongoing issues affecting your satellite or fixed wireless broadband service? If so, how have you overcome these issues?

Ongoing issues with the Satellite broadband service are outlined above. Some members have overcome these obstacles by having more than one service installed as a backup: one member, on a larger cattle property has six services in order to meet personal, business and staffing needs. When one service fails, she attempts to use one of the other services in order to remain connected. This works some of the time but often when one is out, all are out. This property has also invested in YAGI antennas and the approved Cel-Fi mobile booster to try and obtain mobile connectivity which works most nights but not all and not at all during the day. This is a very expensive undertaking but is the only possible option available to expand connectivity options and maximise reliability in the face of questionable reliability of more accessible options.

Q9. If you are in an area with access to the Sky Muster satellite service and you have not taken it up, why not?

Case Study from a member in NW Qld:

At present I have a Telstra Next G wireless service. In order to obtain the data I need for my business and household, along with the extra data required on school holidays when my children are home, I have a basic plan (41 GB p/month) plus a variety of 'shared' devices, all ranging from $5 p/month to $90 p/month. When my allocated data is exceeded I am charged $10 for an extra 1GB. This is obviously very expensive. My last bill, which fell over the school holidays, was nearly $900. However, the benefits of this service is that it is reliable and fast. I have heard numerous feedback about the Sky Muster satellite and its unreliability in overcast weather. Even though I would have access to a substantially larger plan on Sky Muster at a much cheaper cost, I am not prepared to sacrifice reliability and speed. nbn™ has also been unsuccessful in locating my address using my longitude and latitude details and it has been an extremely lengthy process, one which is still unresolved.

I have recently been lucky enough to benefit from a local private provider, who has erected a tower in my area. This provides me with unlimited data (40 mbp/s upload/download) for $165 p/month. With an offer like this, there is no way I would stay with Telstra or consider Sky Muster. I have grabbed this service with open arms and it has dramatically increased the quality of our lives on our remote cattle property.

Q10. What economic or social indicators could be used to guide investment to further improve mobile coverage?

Aside from those undertaking Distance Education, which we have addressed elsewhere in this submission, many small rural and remote schools are implementing the National Curriculum, which increasingly relies on digital delivery and engagement, in areas with congested or sporadic coverage. Many small schools also utilise distance education lessons for more specialised subjects (e.g. LOTE) in instances where there is not a teacher on site to deliver subjects face to face. Access to this type of virtual technology is solely dependent on a reliable, quality internet connection. Without this access, students are not benefiting from a full curriculum which their urban counterparts take for granted. Small communities are suffering economically and socially as families depart due to poor educational opportunities, which could be significantly improved with better internet.

An improved telecommunications and digital offering would also improve the professional and personal lives of teachers. This would improve the attraction and retention rates for rural and remote staffing and ensure teachers working in these areas are able to remain up to date with pedagogy.

Improving educational offerings increases the ability of communities to attract and retain a skilled workforce. Rural and remote areas, currently experiencing unprecedented drought conditions, need to create other income streams rather than continue to remain reliant on agriculture and tourism. A healthy, robust, stable population provides impetus for this economic diversity which in turn contributes to communal and regional growth and sustainability.

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Q11. Is information readily available regarding how to use devices to improve mobile reception in areas with poor coverage? e.g. information about external antenna equipment?

ICPA Qld would contend that information regarding devices to improve mobile coverage is not readily available nor are there many suitable handsets that accept an external antenna connection. The general population does not understand that some phones are unsuitable for areas with lower signal strength.

The Telstra Blue Tick type handset classification is not used by other Mobile operators. This results in unsuitable handsets being purchased for rural and remote areas. The introduction of in-vehicle and in-home repeater devices assists with some coverage issues but a public education program is necessary to inform people of the pros and cons of obtaining maximum mobile coverage and performance. This should include setting up Bluetooth hands free interfaces**.** Cost of devices may be prohibitive to their uptake by some consumers.

ICPA Qld concurs that the MBSP is delivering substantial improvements to mobile coverage across Australia. It also concurs with the statement that "there continues to be strong demand for further investment in mobile coverage particularly in regional and remote areas". In addition, communities that have poor coverage or experience seasonal congestion are seeking network upgrades".

Q12. What emerging digital services will be of most benefit to regional businesses and what are the data needs of these services?

It is unlikely that 5G will benefit Rural and Remote residents due to its short range. An enhanced 4GX (700Mhz) is most suitable to provide IoT (internet of Things), telemetry, video etc. Point to point has some merit also.

Q13. What broadband services are people using other than those available through the nbn™?

Small towns outside of the nbn™ cable network and have been designated Wireless or Satellite often have access to ADSL. The speeds, data plans and cost are, in the case of ADSL, superior to what is offered by nbn™. Nbn™ wireless can compete with ADSL2.

Private Networks offering a Wi-Fi type service have proven to have a superior performance, high data plans and lower cost than nbn™ Sky Muster. It is imperative that support is available from local Councils and the like to facilitate the provision of alternative private networks. Good business cases are essential to prevent private providers becoming unviable. The benefit of alternative services is that it will ease the congestion on the satellite and provide services more comparable to metropolitan areas. Local private providers also provide local employment and utilise local business for installations, thereby supporting the economic and social prosperity of small communities.

Q14. How can more competition be encouraged in the provision of broadband services in Regional Australia?

Entry costs for Wireless and other operators should be minimised so that it is economically viable to compete with established operators including nbn™. A structure (Tower) sharing arrangement should be established for these operators to access existing structures at a realistic cost.

The cost to private providers to access the fibre optic cable should also be reduced or subsidised to enable more cost effective operation and encourage more providers into the market.

Additional Information

Cyber Safety

In today's digital society, it is vital that parents and carers are kept informed and offered extensive education opportunities surrounding the use of technology which enables anonymous bullying. Many parents feel that they are out of touch with what their children are doing online and don't have the awareness required to

monitor their child's usage and activities, especially if a child doesn't want them to. As a part of reducing the prevalence and impact of cyberbullying, we believe education of parents and caregivers is fundamental. Increasing the awareness of what is cyberbullying, how it can affect a child and where to go for help are all important elements which would form part of a parent education program.

In many parts of rural and remote Queensland, digital technology is limited in relation to internet availability. This issue also impacts on a parent's ability to ensure they are aware and knowledgeable of their child's world in relation to social media. In these areas an education awareness program would need to be made available in a variety of platforms such as face to face sessions, flyers, podcasts/YouTube videos to maximize opportunity for parents to get the message where and when it best meets their needs and lifestyle, these should be backed up by hard copies that can be accessed regardless of location especially for rural/remote or boarding school families who cannot attend face to face meetings rather than simply as an online tool. This also needs to be kept relevant to changing media and app trends. Whatever format is delivered it needs to be a simple step by step process. Parents and care givers need to be educated on how to set up protective measures on their children devices and how to check a child's usage. Parents of rural and remote children often experience feelings of isolation from society due to geography and poor internet connectivity. It is vital that this group of parents are specifically targeted in ways which they find easy to access in order to bridge the gap caused by their location.

As parents and caregivers become more aware of the digital world they can become more involved in their child's use of social media and work together to ensure the appropriate safety measures are enabled and age appropriate boundaries set.

ICPA Qld believes that schools also have an important role in the education of children and social media. For many rural and remote children, the exposure to social media only comes into play as they enter the realm of boarding school, as poor internet connectivity and a relatively narrow social circle certainly limits time spent on devices to a minimum whilst at home. Therefore, Schools of Distance Education, small schools and then boarding schools have a responsibility to play a part in educating children and teenagers around the issue of cyberbullying.

ICPA Qld suggests that this education should center around working together with parents on building personal resilience within their children. This could include providing awareness of what cyberbullying looks like, its potential effects and strategies to handle potential situations where children may find themselves involved in an online confrontation. Furthermore, educating children with information and support on what to do if they find themselves a bystander to a peer who is experiencing cyberbullying is also paramount.

Peer pressure is an enormous influencer of engagement in and reaction to social media. A child's peers are arguably the best influencers and modifiers of social content, "acceptability" of messaging around content, behavior leading to actions online/in the "real" world and then they are also instigators in the consequences to those actions/reactions. ICPA Qld believes peer to peer mentoring and telling of their real life experiences is a key strategy to effective engagement and to create active rather than passive hearing of key messages.

ICPA Qld suggests that programs can be built into the Digital technology subjects, as part of the National Curriculum, that can teach the students about appropriate online behavior ensuring that it is age appropriate from Prep through to Year 12, and that the students are aware that the internet is an unrestricted public area.

Schools can also monitor the implementation of digital technology within their own individual school environment, making sure that the students and parents have been thoroughly introduced to all the safety measures available on their device for their protection. Simply requiring that the student has a laptop or iPad for school purposes is not sufficient and many children and their parents are unaware of the array of applications available which can assist with ensuring safety is not compromised.

Exposing the loopholes in social apps and the inadvertent ways children may expose themselves to risk, is also a key to helping them become self-aware and self-check where, when, who and they engage and what they share.

ICPA Qld proposes that a National Media Campaign, involving Federal and State/Territory Governments, preventing and informing the populace of the consequences of, in particular, Cyberbullying and Bullying and the impact that it has on society. This could be in a two stage campaign:

- Campaign directed primarily at youth, to affect their Social Media decisions;

- Campaign directed to parents and other adults who influence youth, the adult campaign given the facilitative role of adult behaviour in Social Media use and the potential preventive effect of parental monitoring.

This needs to implemented across a wide range of platforms in order to ensure such a campaign is reaching every one across Australia.

Education and Health

ICPA Qld acknowledges the potential telecommunications has to make a real difference to successful education and education related health outcomes for teachers, students and their families in rural and remote areas.

It welcomes the recognition by the Committee of the need to prioritise the improvement of delivery of the Satellite product to students undertaking their learning via Distance Education.

ICPA Qld has long been advocating for the use of technology to deliver regular and reliable allied health services to students unable to access face to face services due to their geographic location. With few suitably qualified professionals in areas such as speech therapy and occupational therapy many students are currently receiving, at best, infrequent services subjected to frequent personnel turnover. This frequent turnover also impinges upon the quality and quantity of progress. The ability to use video conferencing, either at the school or via telehealth, would greatly increase regularity, reliability and consistency of delivery of essential support which would in turn increase successful educational outcomes and support teaching staff to create and imbed support for students into their daily learning activities.

Rethinking Consumer Protections and Policies

ICPA Qld notes the contention made by the 2015 committee that regional Australians are moving away from standard telephony services and towards mobile and internet-based services. However, the term "regional" is broad and would seem to encompass any non-urbanised area and create a misnomer about the availability and uptake of modernised services.

With population used a key determinant it would seem this contention has merit. However, if geographic location was the key determinant, it would clearly show that large areas (approximately 70% of the Australian landmass) do not have consistent and constant alternatives to replace the standard telephony services, including payphones. For this cohort of the population it is imperative that supply of a stand-alone landline service continues and is underwritten by a robust, enforceable and enforced Universal Service Guarantee.

Until the majority of the landmass, as opposed to population, has access to mobile and/or internet coverage, standard landline services must remain in situ. Directing and or diverting funds from the supply and maintenance of this service towards further investment in mobile coverage will further disenfranchise those already trailing behind and be a disincentive to investment in business, communal and social infrastructure. It will also escalate negative and damaging risk to education, health and safety, biosecurity, communal and individual mental health and business outcomes for those residing within that 70% of the landmass.

Education delivery in the modern era is critically dependant on the availability of a reliable internet service with sufficient speed and data capacity for both lesson delivery and participation. Given the lack of accessible service delivery via face-to-face means, ICPA Qld agrees with the Productivity Commission's finding in 2017 that digital service delivery must be underpinned by a Universal Service Obligation type guarantee. Governments throughout Australia are encouraging digital communication, investing in web-based service delivery for health, education and numerous other fields. Given the very high dependence and total reliance on a single mode of data delivery, guaranteed repair times and minimum standards are essential for digital service delivery.

Government Investment

As mentioned previously, ICPA Qld acknowledges the significant investment made by the Federal government in the various network delivery options for digital and telecommunications technology. While we agree that access has improved for many, there is still a significant disparity between the variety of options and the quality and quantity availed by those options for consumers in urban areas and those living not just on the fringe but beyond the "black stump" and the bitumen. This disparity further widens the disadvantage created by the tyranny of distance.

Frequent anecdotal evidence from members, highlight that issues around telecommunications and digital networks are ongoing and remain substantial. Concerns remain ongoing, including:

- Reliability of Sky Muster (satellite) nbn™ particularly during inclement weather. As stated in 'Key Areas of Interest' above, the Sky Muster service is far more sensitive to cloud shading in comparison to other satellite services delivered to these areas e.g. VAST television. At a time when remote area residents need information for safety and disaster management purposes it falls short of delivering secure, reliable service.

- At times of Sky Muster peak usage (e.g. middle of the day or mid evening) members are still reporting speed reduction to such an extent that either connection is impossible and/or service dropout is frequent.

- Unreliability during the wet season is also the reason that many residents in areas with no mobile coverage remain concerned about the provision of a secure, stand-alone land line service. The customer radio systems (which include HCRC) that serve much of these areas is aging with declining quality of service, extended repair times and a much reduced bank of parts and personnel trained in servicing this equipment. Despite the reduced functionality and impending demise of this system, no alternate system has been planned or prepared as a replacement.

- Satellite VOIP has been touted by some as the replacement for the above system. The frequent outages during wet weather or connectivity issues during times of peak usage highlight that satellite VOIP may not deliver a similar consistent, reliable, secure service as the current landline service. Members, who have utilised satellite VOIP have noted that while voice clarity is not an issue, should speeds slow voices tend to "break up" and quality of conversation is impinged upon.

- Some members are in areas where electricity outages are not uncommon in the annual fire/storm season. A lack of power could mean no internet, no mobile coverage – another concern with VOIP- as current landlines do not require power to work.

- All nbn™ services (Fibre to the Node, Fiber to the Curb, Wireless and Satellite) that supply voice services must have the ability to have a battery backup as electricity outages are not uncommon particularly during the annual fire/storm season. An interruption to mains power could mean no internet / satellite VOIP, and if there is marginal mobile coverage, Mini repeaters (boosters) would not work. A major reduction in reliability would result at a critical time. Current landlines do not

require local mains power to work. The Federal Government directed that users of the nbn™ fibre network located major towns and cities must be offered a backup battery system to ensure a continuity of service. Users in other areas including rural and remote, who have minimal other communications options have not included in the battery backup requirements. It could be very possible that if a town or locality loses power the whole town/locality would not have the ability to access voice services.

- Should the internet become the default method for telephony delivery this would increase the pressure on the satellite service through vastly increased usage. Unless more satellites are launched to meet the increased usage, it could be assumed that plans would be reduced to create "space" to accommodate this.

Consumer Safeguards Review

Members report of the difficulties of dealing with Telstra call centres and the lack of easy to find numbers for rural and remote customers to ring. The lack of specialised Telstra call centre staff who are knowledgeable about rural and remote issues compounds difficulties in arranging and prioritising repairs. ICPA Qld commends Telstra for making permanent the regional call centres after the successful trials which took place.

Historically many internet service providers have sold contracts promising data speeds that have not been consistently or reliably achieved. There appears to be little regulation of the industry to ensure service providers deliver their end of what is a contractual arrangement. However, consumers are still expected to pay for a level of service they are not receiving. Competition has failed to address this problem and a pro-active regulatory authority should enforce consumer safeguards

Conclusion

Both voice and data communication systems need to be reliable, affordable and mobile. The capacity of these systems should not restrict education, business, safety, or social needs.

Development of new technologies continues to be focused on residents who have communication services that meet all of the above criteria. Mobile apps now exist for numerous uses, and offer speed, convenience and affordability that has resulted in virtually universal adoption by those within the wireless footprint.

The needs of residents outside of this service area are not well met, as service providers often do not appear to consider the needs of this minority; e.g. some government forms can only be completed on line. People reliant on data delivery via satellite often do not have the capacity to download, complete and return these forms, and there is no option to print and mail them. With the ever increasing global push to become a paperless society, this demographic is being left behind.

With the limited capacity and latency problems of satellite systems, these should only be considered as a solution of last resort. The Australian Government's Mobile Black Spot Program is commendable but must make further expansion.

ICPA Qld appreciates the opportunity to participate in this review. Equity of access to education for all students who live in rural and remote areas can only be enhanced by recognition of, and amelioration of, the barriers caused by lack of appropriate access to 21st century communication systems.