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## Submission to the Regional Telecommunications Review 2021

The Isolated Children's Parents' Association of Queensland (ICPA Qld) advocates for equitable access to quality educational opportunities for children in rural and remote areas. ICPA Qld represents over 1241 members across 45 branches, extending into some of the most remote locations in the state.

With only three people every square kilometre, Queensland still manages to be the sixth largest Sub-National entity, housing 20% of the Australian population. Although our students and their families are slight in numbers they are as deserving of the same constitutional rights to Information and Communication Technology (ICT) as every non-rural and remote citizen.

It is with great appreciation for what has been achieved since the 2018 review and with enthusiasm, that we welcome the opportunity to respond to this review, highlighting the unique needs of rural and remote students and their families.

### Introduction

ICPA Qld acknowledges and thanks the Federal Government for its commitment towards modernising the telecommunications environment in Australia through a variety of programmes which have significantly improved outcomes for many regional, rural and remote consumers.

Despite this, ICPA Qld believes significant challenges remain in these areas of Australia and extensive work to deliver, maintain, and upgrade systems in regional and remote areas still needs to be undertaken. These enhanced systems will enable 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. This 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 Concern

The key challenge for rural and remote education is ensuring, regardless of location or circumstances, that every student has access to high quality digital technology and communication to enable them to complete their education at all levels.

The reality of ICT in rural and remote areas is the sluggish pace of both technology and mobile network upgrades with 4G slowly rolling out into these areas, and 5G still a future promise. Existing terrestrial based technology that

provides fixed line services is ageing and there continues to be no announcement of an imminent, equivalent terrestrial based replacement option.

ICT access continues to be an issue for rural and remote schools as well as homes with students who study via Distance Education or are returning from boarding schools or university during holidays and who may need to study and work on assessment tasks. The availability, accessibility, and affordability of ICT for rural and remote schools, teachers, students, parents and communities must remain a high priority.

### Responses to Issues Paper

#### *1. What telecommunications services are required in regional Australia to meet current and future needs?*

- The continuation of the terrestrial fixed line services in a well-maintained condition receiving service, repair and attention in a timely manner or an equivalent or better replacement
- NBN packages
- Satellite phone options and affordability
- Mobile networks to be extended and upgraded
- Consistent mobile providers across rural and remote areas
- Acknowledgement of and support of non NBN terrestrial internet providers in area that only have access to nbn Satellite internet.

#### *Are there any things regional communities and businesses need to do, but can't, on their existing services?*

Access to multi modal education delivery services is imperative and currently cannot be guaranteed on existing services due to multiple factors.

High voice latency on satellite voice services is problematic for kindy and lower primary students, so it is recommended that low latency voice services are used to enable learning and speech outcomes to be achieved. Any replacement voice communication system must have the ability to provide multiple voice lines to achieve educational requirements.

It is desirable that all students have access to at least two forms of communication to complete their learning. If for example the NBN Satellite went down due to the weather or technical failure the student would still be able to access their lesson via a non-satellite-based network. It is vital that sufficient bandwidth be available to allow for consistent, reliable access to all education services.

#### *2. What changes in demand, barriers or challenges need to be addressed when it comes to telecommunications services in regional, rural, and remote Australia?*

We are living in a global village and telecommunications technology has become the default method for accessing education at many levels. The limitations placed on satellite-based services hampers sufficient and ready access to educational platforms. The on/off peak nature of some plans, with the bulk of data being offered during off-peak hours is not optimal timing for age-appropriate usage. Students and family's prime data usage is during school hours and evening to conduct homework activities, therefore off-peak hours are irrelevant.

Weather affects satellite service and so during times of natural disasters, when services are most needed, the connectivity can be extremely unreliable. Response time to repairs and outages can be slow and convoluted meaning significant down time. When this occurs children undertaking Distance Education in the satellite footprint are unable to connect to daily on-air lessons, send or receive assessment tasks or additional learning materials. This obviously has a major impact on their learning and could also negatively impact on their school reports.

The existing terrestrial based technology that provides fixed line services is ageing without the promise of an equivalent terrestrial based replacement option. These landlines still largely used in rural and remote Australia due to a paucity of mobile coverage, are relying on outdated and decaying technology, equipment, and declining service. Many geographically isolated students still utilise a landline service for daily interaction with their teachers and fellow students and for additional support lessons. It is imperative and urgent that a terrestrial based replacement solution with backup power be sourced and implemented before the current landline system is rendered obsolete and unserviceable.

For those rural and remote areas where mobile coverage is available, 3G is often the default mobile network. Families on the fringe of this coverage have invested heavily in equipment to capture and boost that signal to reduce reliance on satellite through the purchase of antennas, fixed and mobile boosters. There needs to be some form of assistance to assist in the transition to new equipment to utilise other networks once 3G is turned off.

### *3. How have the Government's policies and programs affected telecommunications service outcomes in regional, rural, and remote Australia? How can these be improved?*

The Federal Blackspot program has been highly effective and ICPA Qld would encourage further similar programs. Furthermore, as networks upgrade, we would encourage these programs to include support to users when it is necessary to upgrade hardware needed to maintain access the networks.

There are existing trials to test replacement solutions for existing fixed line technologies. Some of the proposed solutions involve using the nbn Satellite network. This is seen as nonviable as the satellite is affected by weather plus it is impossible to overcome the reality that calls to other users on the satellite solution would involve double hop working, with excessive latency (delay). This would make calls for school lessons unworkable. Development and rollout of a readily available, serviceable, standalone telephone solution that is not dependant on mains or generated power to operate for rural and remote Australia needs to be an expedited priority going forward or vast tracts of Australia will soon have no simple, accessible method of daily communication available to them.

The finite technology which is satellite nbn has resulted in limitations on amount of data available, timing constraints around data availability and there are still issues with buffering etc as upload/download speeds are not sufficient to allow for seamless use. This can affect students relying on technology to fully engage with classmates and their teachers, access learning materials and return assessment tasks.

### *6. How did the use of digital services change for regional consumers and businesses during the response to the COVID-19 pandemic? What insights for future service delivery does this provide?*

Some four million students were impacted by the Covid-19 lockdowns and while some students demonstrated great adaptability and resilience, others struggled. This struggle can be attributed to the home learning environment where the opportunity to connect with suitable devices and data packages was unavailable and/or unreliable. The pandemic lockdowns have highlighted the shortcomings in the amount of data available (in areas where unlimited data plans are not available), the lack of bandwidth for mobile services rendering them unusable during schooling hours by

students and then of course by business and service providers as well and the impractical "generosity" of off-peak data offerings. As many universities are still not offering on site learning the need for data and bandwidth is still there for regional and remote students including mature aged students who may have already been learning from home.

The rapid adaptation to home and online learning has further highlighted the digital divide between Australians with ready access to the internet and internet-enabled devices and those without. The shift to online education disadvantaged many students, with vulnerable children and those in their early years of schooling facing long-term impacts on their education. The move to online learning as boarding schools closed doors vastly increased the use of digital services for educational purposes. With lockdowns and border closures still a reality, some rural and remote students (as well as teachers caught on the wrong side of the border) are still using online platforms for their day-to-day learning. The need for support services for mental and emotional health of young students and their caregivers has also been impacted and the need for support increased. The move to mass online learning highlighted the opportunities and possibilities digital connectivity could offer. It also stimulated and encouraged development of online offerings which could be used by rural and geographically isolated children whose daily learning is either partially or fully reliant on digital platforms.

Remote learning is here to stay and has become the default status for many more than the geographically isolated who have always undertaken their learning this way. Given the cost savings to be made (after the initial development and embedding into a digital format) and the challenges there are with sourcing and retaining professionals who wish to work remotely, it is apparent that the use of digital services for educational purposes will only increase. These services must be capable and agile enough to sustain and strengthen levels of capability and performance to meet current, emerging, and increased future needs. ICPA Qld feels it is imperative to stay ahead of the curve as digital connectiveness builds momentum across education at all ages.

### *8. How can investment in telecommunications infrastructure work with other programs and policies to encourage economic development in regional Australia?*

Many individuals, businesses and entities in remote locations are happy to work with relevant bodies to improve telecommunication opportunities. We have members that have made substantial infrastructure investments to obtain services and hence we feel support for infrastructure grants would be well received. While there are booster kits and alike available the tyranny of distance often makes the coverage footprint from such devices insufficient and more elaborate solutions are required.

While ICT improvements will be a national directive, local Councils may be a good information and delivery point for funding opportunities. They would have a good understanding of their electorate's needs and likewise their limitations. As not all Australians feel the same level of "need" around landlines, Councils could provide more accurate data for these programs.

Using population methodology as the base determinant for funding and investment ensures that approximately 90% of Australia's landmass where less than 10% of the population lives remains forever lagging in facilities, services, and quality of living. If Australia wishes to remain a major contributor to the social and economic fabric of the modern global village, rural and remote communities must be supported from the grass roots up to ensure educational access is available to families regardless of location.

The economic development benefits from telecommunications advancement can also be indirect. For example, James Cook University has constructed a multipurpose building in Burketown (in Queensland's Gulf of Carpentaria region) for its medical and allied health students. Students live and learn in this building (which takes advantage of the fibre optic available in Burketown to facilitate the remote learning) and the students also undertake their practical learning at the local health clinic and/or outlying indigenous community hospitals as well as working with local schools, aged care, and other health providers to gain knowledge and experience and help those requiring treatment/support. These students and the facility have created local employment opportunities, contributed to the local economy and the

social fabric of the community. This fibre optic was laid as the result of funding and collaboration between Federal, State and Local Government and commercial service providers and highlights ICPA (Qld)'s advocacy to progress investment in telecommunications.

*10. To what extent will new technologies enable significant change to the delivery of telecommunications services in regional Australia over the next 5-10 years? Are there any barriers to accessing these technologies?*

While ICPA QLD celebrates the implementation of new technology, it must be acknowledged that vast areas of rural and remote Queensland remain inadequately serviced. Additionally, it must be noted that the upgrades to services like 4G in rural and remote areas are not keeping pace with consumer demand and there are many locations suffering from reduced and overly congested services.

Rural schools could be upgraded with facilities which allow virtual classrooms to exist, with lessons available live to students who are unable to access school daily. This would enable interactive training across all spectrums of education and learning. A student may be able to complete some aspects of their TAFE course with a mobile robot and their teacher at the other end. A student teacher may be able to complete components of their practicum time in a remote classroom while being supervised by their qualified teacher from another location. Smaller schools could be aligned with larger metropolitan schools to allow students in rural and remote areas to access subjects with their peers which are not available within their own school due to lack of enrolments or expertise. Virtual technologies could enhance education in a magnitude of ways.

*11. How can Government better support the rapid rollout of and investment in new telecommunications solutions in regional areas?*

The Blackspot programs were very well received, and we would welcome extensions of these packages in further areas of the state.

Increased government support for independent providers who are undertaking and developing telecommunications solutions specifically tailored to service the unique needs of particular regions, should be encouraged. For example, Field Solutions has installed a point to point wifi internet service in the Blackall – Tambo region, which supported one family to educate five students, whilst having no impact on usual business activities during the extended Covid lockdown in Qld in 2020

*12. How can different levels of Government, the telecommunications industry and regional community's better coordinate their efforts to improve telecommunications in regional Australia?*

ICPA Qld Inc commends stakeholder roundtable groups, however, encourage the development of an overarching body to consolidate these views and initiatives and ensure ongoing action. Additionally, as there is state and federal funding involved there would need to be a collective group comprised of Federal, State, Regional and Local Council representatives.

*13. What changes to Government investment programs are required to ensure they continue to be effective in delivering improved telecommunications?*

Success of rural remote communities requires sustainable collaborative efforts of governments, the private sector and existing regional bodies and strategies to develop and implement a long-term plan that puts regional, rural, and remote education and development at the centre of the economic agenda for jobs and growth. In other words, what is needed is a roadmap that has government endorsement and sets out strategic priorities that all parties collectively sign up to. It seems that the strongest way to bring multiple parties together is through shared responsibilities, action, and reporting. Creating a national focus for rural remote education and training would provide the structure to enhance access and outcomes in regional Australia. To achieve an enduring focus and concerted effort on a critically important national issue like raising the achievements and improving the post school opportunities of rural remote students requires a dedicated national body to drive, monitor, evaluate and report on outcomes and progress.

*14. How can regional consumers be better supported to identify, choose, and use the best connectivity options for their circumstances, as well as to understand and use their consumer rights?*

BIRRR and, additionally of late, the Regional Tech Hub have been commendable services and ICPA Qld would encourage support in their direction.

Many members still prefer the option of speaking with an onshore support team or technician. Generalised web-based trouble shooting is often just that, general in nature, and if you are finding faults on the NBN for example and don't have mobile service it would render the web help useless. This furthermore highlights the need for maintenance of a landline service.

ICPA Qld believes the provision of an interactive webpage whereby identifying your location with a map pin would then allow a consumer to view the options available to them in their area in relation to internet connectivity to cater for their student's educational needs. Additional subheadings could potentially also offer advice on existing services for Allied Health and online support which are relevant to that connection.

*5. To what extent is public information on connectivity options, including predictive coverage data and speeds, sufficient to help regional customers make informed decisions? What other information is needed?*

ICPA along with BIRRR and the Regional Tech Hub are always passing on information. However, as with many things, there is an information overload and identifying relevant information can be burdensome. It is essential that rural and remote families are made explicitly aware of the technology and connectivity options available to them when choosing an education platform for their children.

ICPA Qld acknowledges that cybersafety is a national and global issue, and therefore we would strongly encourage further development in this area in relation to educating students and their caregivers. Continuation of school programs and open parent information sessions which are also made available to families in rural and remote areas of the state would be of great benefit.

*16. What other matters should the Committee consider in its review and why are they important?*

While all aspects of telecommunications are vital to every human living in Australia, students that predominantly rely on digital learning must be given special consideration in times of planning. A multi-level federal, state/territory and local area board is essential to provide the drive and ensure diversity of decisions and resourcing required to improve achievements and opportunities for rural and remote students.

Proactivity rather than belated reactivity is key to ensuring the telecommunications divide doesn't continue to widen between urbanised and nonurbanized areas. Proactive steps should be taken to:

- Overcome educational barriers due primarily to student and/or educational institution location and unlock wider/global opportunities fundamental to improving student achievements and pathways beyond school.
- Ensure the development and embedding of Web-based technology to increase subject choice, support for gifted and talented students and for those who have specific learning difficulties,
- Guarantee appropriate, reliable, readily available and affordable telecommunication offerings backed up by sufficient bandwidth and backhaul allocations
- Embed responsiveness into offerings to meet increasing and emerging needs and trends.

Technology, including better connectivity with the NBN, is helping to overcome geographic isolation by enabling students to network their peers. The use of peripatetic learning area specialists and on-site face-to-face support for regional senior students undertaking distance education are also helping to overcome some of these issues.

While it is recognised that in small schools and individual school rooms on stations for example that it is impossible to have curriculum experts ready to help 'at a moment's notice', it is essential that students have access via reliable technology to a person who is a very 'hands-on' guide to help them with their learning.

### Conclusion

Access to appropriate communication technology and services is the oxygen required to sustain the educational lifeblood of rural and remote students and families. It has the potential to close the gap in educational inequity caused by the tyranny of distance.

Regions with ample services flourish and once these communities have received significant upgrades, real growth, from the grassroots up will eventuate and communities will start to see their potential. Starting with education, a community that can sufficiently and successfully educate their next generation will improve outcomes and opportunities for not only that one person but their entire family, potentially encouraging innovation, philanthropy, and entrepreneurship leading young minds to make real and substantial changes in rural and remote industries. We now operate as one global village; constantly changing and evolving, hence it is essential to keep the youth as innovative as possible. Access to educational opportunities in regional and remote areas, through technology and telecommunications, prompts and supports innovative learning and students need not relocate away from support networks, employment, and their home in order to upskill.

Access to high quality education is essential so young people can acquire the knowledge, skills, attitudes, and values to enjoy life and successfully transition to further study, employment and enterprise, and participate fully in a dynamic and increasingly complex world. Education and training play a critical role in building the social fabric of communities, but also in developing social capital for economic prosperity.