



ACCC Regional Mobile Infrastructure Inquiry

August 2022

10th August 2022

Mr Grahame O’Leary
Director, Regional Mobile Infrastructure Inquiry
Merger Investigations
GPO Box 3131
CANBERRA ACT 2601

Via email grahame.oleary@acc.gov.au & rmii@acc.gov.au

Dear Mr O’Leary,

Re: Regional Mobile Infrastructure Inquiry

Field Solutions Group (FSG) welcomes the opportunity to submit a response to the ACCC’s Regional Mobile Infrastructure Inquiry.

As an emerging regionally based Mobile Network Operator, existing broadband network telecommunications company and a mobile network infrastructure provider, FSG feels it is uniquely placed to provide feedback to the inquiry.

The inquiry raises some timely questions and challenging topics to which FSG has responded within the following table, grouping questions together where it felt appropriate to do so.

We welcome any queries or clarification on our submission and look forward to working collaboratively within the industry and with Government.

Yours Sincerely,



Vin Mullins
Group Executive | Government, Regulatory & Carrier Relations
Field Solutions Group
vin.mullins@fieldsolutions-group.com

ACCC QUESTIONS	FSG Response
<p>1. What are the typical costs incurred in providing telecommunications towers and associated infrastructure?</p> <p>Can you quantify these costs by providing examples?</p> <p>12. How does the cost of providing new, or upgrading existing, mobile tower (both active and passive) infrastructure impact the decision to invest in infrastructure that can be used to supply mobile telecommunications and other radiocommunications services?</p> <p>14. Are there additional costs specific to rural, regional, remote or peri-urban areas?</p>	<p>The cost to establish a greenfield tower can vary significantly and needs to factor in several variables of which some are listed below:</p> <ul style="list-style-type: none"> • Distance from supply chain • Access Regimes and associated tenure terms • Geotechnical Challenges • Construction Access Challenges • Availability of grid power, its connection and requirement for upgrades to facilitate services (including time) • Ground and Access Lease recurring costs • Mobilisation of construction crew costs, including labour costs • Material Costs <p>Typically, there are three main phases in the life cycle of a site build:</p> <p>Phase 1 – Site Candidate Assessment Phase 2 – Site Acquisition Phase 3 – Site Build combined with installation and integration of all required electronics to facilitate the objective of the site.</p> <p>The first two initial phases are often the longest in duration. Finding a location that meets objectives is a first step but moving to next phase of site acquisition is where significant delays can occur and drive incremental costs. For example, federal or state-controlled land, such as crown and road reserves, can take significantly long periods of times to seek approvals.</p> <p>Significant time and cost can be accumulated in these first two stages. Examples of drivers can be multiple site surveys taking place due to failed candidates, or protracted acquisition requirements are encountered that may be unique to a location (ie crown/government land) or a community.</p> <p>[CIC]</p>

	<p>The costs can skyrocket if there are construction access limitations such as access track modifications required or the need to use helicopters for build for example.</p> <p>The ability to cluster build efforts can have a significant positive impact on project build costs, reducing mobilisation expense and benefiting from more efficient resource management. However, there are very few telecommunications carriers that are building greenfield sites in clusters at this time. FSG is however deploying its network in this manner.</p> <p>Power remains a considerable cost and the times taken to assess, design, acquire approval and then build for on grid solutions can be a significant roadblock. The more remote/bespoke from power network your solution is required, the more complicated and expensive solutions become.</p> <p>Alternative off-grid solutions are now not only becoming more cost effective, but there are also longer term environmental and operational expense benefits that form part of the alternatives of power supply.</p> <p>Cost of materials & mobilisation remains a key driver. For example, the cost of steel increasing dramatically as the result of iron ore costs rising by over 200% in 12 months. Diesel costs rising 64% over same period – impacting both domestic and international logistics expenses.</p> <p>In relation to costs specific to varying regions, FSG is of the opinion that Peri-Urban areas do not attract <i>significantly</i> incremental cost to establish or operate telecommunications facilitates compared to that of a “metropolitan” area.</p> <p>As referenced above, the general rule of thumb is that the farther you move away from the entire supply chain, the higher the cost to build.</p>
<p>2. What costs are involved (for example, in setting up and maintaining) business practices and systems needed to support the provision of access to towers and associated infrastructure?</p>	<p>There are several software packages that can assist with the establishment and operation of tower access. These packages often manage not just access agreements but also the deployment of infrastructure. They come with</p>

	<p>establishment costs and annual recurring licence fees which vary based on access levels.</p> <p>Over a ten-year period, these costs can easily exceed \$700,000 <i>without</i> inclusion of associated costs of dedicated full-time employees to manage the portfolio and client accounts even for a small team.</p>
<p>3. What costs are involved in accessing land required for the establishment and operation of telecommunications tower infrastructure?</p> <p>Do these fees differ depending on the owner of the land (for example, public v private ownership)?</p>	<p>This is another variable which can change not only based on region, but on adjacent properties within a stones throw of each other when it comes to private landholdings.</p> <p>In FSGs experience, a good majority of private landholders appreciate the need for telecommunications and will often have a realistic view when negotiating “compensation” for access and tenure on small part of their property.</p> <p>[CIC]</p> <p>Recurring costs incurred by a tower owner will ultimately end up being borne by the end customers as a cost of sale. Controlling network costs is critical to operating a sustainable and profitable network – regardless of location but a greater challenge in regional and remote parts of Australia.</p> <p>In certain circumstances, landholders can require modification to leases which can result in higher-than-normal legal fees associated with builds. For some locations requiring detailed surveying work, result in higher than normal mobilisation costs for these specialised services.</p> <p>The time it takes for approvals and access needs to be considered as a cost. This is particularly more of a constraint when dealing with some government agencies or impacts of legislations coveting pastoral lands for example.</p> <p>Expectation of leasing varies dramatically in the private sector and often references are made by landholders to what they believe neighbours/families etc are paid by other telecommunication companies to have a tower on their land.</p>

	<p>In some circumstances, precedents set by incumbents in the region can have detrimental outcomes in a region. Those familiar with the industry may recall the rapid deployment of two failed mobile networks in metro areas that drove inflated leasing costs still being felt today by MNOs and TowerCos.</p> <p>Variations are seen even within government-controlled land and structures. In certain circumstances, an access seeker to an existing tower on government land may trigger significant additional operational expense to those existing asset owners; An example of government policy possibly resulting in a lack of competition eventuating often where it is needed most. And solely due to the increase in operational expense of a network infrastructure</p>
<p>4. What are the typical commercial arrangements for access to towers and associated infrastructure?</p> <p>6. Are there any other considerations that contribute to/determine these commercial and other fee arrangements for access to towers and other infrastructure?</p> <p>8. Are current commercial arrangements for access to mobile towers and associated infrastructure effective? If not, why and what could be done to improve their effectiveness?</p>	<p>Commercial arrangements for co-location on towers and structures may involve for example</p> <ul style="list-style-type: none"> a) An application fee(s) b) Assessment fees c) Recurring Annual Fees (licence fees) d) Volume discounts <p>Additional fees may be required to be paid for ground leases in some circumstances and rarely is cost of power part of a commercial arrangement with a tower owner.</p> <p>Many of the tower assets built in Australia ahead of 1992 were funded by the Commonwealth for non-mobile telecommunications services. In the early days of competition, Optus and Vodafone were rolling out new infrastructure to deploy their own networks and re-using the Commonwealth funded assets. Investment into assets that were there to drive competition and enhanced services – not be a driver of revenue and profit to their owners from access seekers of these then new towers.</p> <p>The recent tower sales have certainly been welcome news for those divesting, especially welcoming the capital to offset the high costs of 5G deployment. Record valuations, market competition and thus the price paid for these</p>

	<p>towers, results in the new owners needing a solid return on that investment, all be it over the long term. This includes marketing sites to generate a return on the value placed on these assets in addition to the committed revenue from anchor tenants.</p> <p>For the most part, these assets are now owned by those whose revenues are not generated by the end consumers and their mobile and fixed wireless devices. They are owned by parties whose primary business model is to be a landlord for telecommunications equipment.</p> <p>[CIC]</p>
<p>5. What role do specialist entities such as land aggregators, both commercial and government, play in acquiring access to land or the sites of towers?</p>	<p>More often than not, land aggregators are not benefitting the industry but indeed locking up prime land and inflating the cost of deployment and its associated operational expense.</p> <p>This can result in lessening of service levels (by those wishing to build towers AND provide services having to settle for less-than-optimal locations). This is especially the case when multiple land parcels in the same areas are targeted, thus limiting others from securing land to build structures.</p> <p>Operational expense is a significant consideration for any telecommunications operator and can be the reason why a tower does not get built and much needed services not provided to an area. This includes much needed competitive services.</p> <p>This practice has also been used by TowerCos as they diversify their own business models whereby, they undertake their own predicative planning and anticipate locations telecommunication providers may require to deploy new equipment to enhance services.</p> <p>Agreements are put in place that secure land for the build of towers. This is often seen in peri-urban and conurbation growth corridors where there is likely to be demand from one or more “tenants”.</p>
<p>7. What other matters do providers of towers and associated infrastructure consider in deciding to provide towers and/or provide access to towers?</p>	<p>Operational expense is a major factor that requires consideration when assessing telecommunications infrastructure be it as an access seeker or access provider. These costs</p>

<p>13. How does the cost of access to mobile towers impact the decision to provide access to mobile telecommunications and other radiocommunications services?</p>	<p>will ultimately be passed onto consumers of the services provided.</p> <p>As has been well reported in media, the costs of power supply is having a huge impact on business operations and telecommunications isn't spared from these costs. Whilst some larger carriers can absorb within their cost of operations for now, this can be more problematic for new entrants to the market.</p>
<p>9. Are current regulatory arrangements for access effective? If not, why and what could be done to improve their effectiveness?</p>	<p>Part 5 of Schedule 1 of the Telecommunications Act 1997 has been providing an access regime that has worked for the most part over the years given the many co-located towers in operation today.</p> <p>Despite the framework, there have been past practises that could have been better regulated</p> <ul style="list-style-type: none"> • Deployment of "Dummy" antennas impacting space availability and structural load considerations • Offering significantly less antenna height to a competitor and thus maintaining coverage advantage • Maintaining excessive reservation of space on a tower <p>Post divestment, new owners of towers are now looking to maximise their returns and thus, the practices of the past are just that. Indeed, in FSGs experience, we have already seen a "freeing" up of space and lessening of what would have been excessive reservations resulting in structural upgrades to co-locate our own equipment on these recently acquired assets.</p>
<p>10. Has the recent divestiture of tower infrastructure by MNOs impacted on the effectiveness of current commercial and regulatory arrangements? Please provide details and examples.</p> <p>15. What are the implications of MNOs divesting their tower assets on the current commercial and other fee arrangements for access to towers? How have these</p>	<p>There is no doubt that recently divested MNO tower infrastructure is now owned (in varying parts) by investors looking for a return on their <i>extremely</i> significant investments.</p> <p>The owners of these assets are incentivised to have new tenants on each one of their assets.</p> <p>With that said, access seekers should not be held to ransom if these new owners have paid significant costs for individual assets that, if</p>

<p>changed as a result of the divestment of tower assets by MNOs? Do you expect these to further change in the future and why?</p> <p>16. How has the recent divestment of tower infrastructure by MNOs impacted: (i) the scope of access offered (ii) the terms and conditions of access, and (iii) the commercial and other fee arrangements for access.</p>	<p>assessed with more rigour, were clearly not as valuable as thought.</p> <p>There's no doubt a tower site in metropolitan or major regional centres with only one tenant and solid market competition, should be valued highly. In a market such as this, growth can be forecast from the anchor tenant and from its competitors seeking to participate in a healthy competitive market environment.</p> <p>A site built by the Commonwealth for the Post Master General/Telecom, now effectively sold "twice", in a sparsely populated remote part of Australia, has a much lower value – especially when considering its location, age and structural condition.</p> <p>Whilst some may categorise assets using the Remoteness Structure of the Australian Bureau of Statistics, such general assumptions made at time of the sale are most likely in favour of the vendor, than the buyer.</p> <p>Significant Commonwealth funding has been invested in deployment of expanded coverage since the early 2000s. In the early days, most of this subsidisation went into the significant expansion of the then, fully wholesaled CDMA network. This led mostly to subsidise deployment of new CDMA antenna and equipment on those very sites the Commonwealth funded the Post Master General/Telecom.</p> <p>In more recent years, Commonwealth Blackspots programs have funded infrastructure builds for the three MNOs and MNIPs. Recent divesture by the MNOs has resulted in these Commonwealth Funded assets being purchased by consortia whose primary goal is long term return on investment.</p> <p>How do new access seekers to these structures get recognition of that original government subsidisation?</p>
<p>11. What costs do providers of towers and associated infrastructure incur in providing active and/or passive mobile infrastructure? Can you quantify these costs?</p>	<p>Greenfield Sites: Traditional TowerCo, will only invest in construction of new infrastructure when they have a commercial agreement with an access seeker. The TowerCo will assume all</p>

	<p>responsibility to acquire the land, undertake statutory approvals and construct the tower ready for the deployment of access seekers equipment.</p> <p>These costs incurred are then recovered by way of licence fees across the term of the agreement with the access seekers.</p> <p>Theres no doubt that in future, TowerCos will diversify to offer greater services on behalf of access seekers in order to provide a more end to end experience.</p> <p>Brownfield Sites: For TowerCo with existing assets, costs generally relate to the administration of access to the tower and varying services offered to access seekers – all of which are a cost of sales and built into access seeker licence and application fees. This is in addition to the ROIC required to make the asset profitable.</p> <p>Active Sharing: When considering Active Neutral Host RAN deployments, in addition to costs associated with greenfield or brownfield sites, the TowerCo is taking responsibility for the purchase and deployment of the active equipment on the tower/structure and spectrum value. Additional costs are then incurred between the TowerCos active network and that of the access seeker. These costs would be handled in a commercial in confidence agreement between the TowerCo and Access seeker.</p>
<p>17. How does the cost of providing mobile towers and associated infrastructure affect the provision of greater mobile coverage?</p>	<p>There is no doubt that coverage is king, however, the costs to deploy more coverage to meet market expectations are only getting higher and more uneconomically viable.</p> <p>The coverage divide in networks in Australia is significant despite best efforts of some providers to tackle the almost monopoly within regional Australia.</p> <p>Significant investment in recent years outside of metro and major regional markets has primarily been subsidised by Commonwealth and State Governments.</p>

	<p>It's worth noting that the once nationally wholesaled CDMA network, that benefited from substantial government subsidisation for its expansion in regional Australia, was short lived and withdrawn from the wholesale market with introduction of 3G. An overnight re-monopolisation of many parts of regional Australia that survives to this day.</p> <p>Most of this expansion, was subsidising the deployment of the CDMA network onto many existing Commonwealth funded radio transmission towers.</p> <p>As the gap widened between networks, so to the cost to deploy. Competitive access seekers footing entire bill for their deployments, but also incurring licence fees making the cost recovery far greater than the incumbent.</p> <p>Reuse of existing assets wherever possible is always encouraged, although not every asset is suitable as referenced in response to question 21. Barriers can still exist to their use, mostly around commercial and access agreements.</p> <p>Alternative solutions such as carrier approved, legal low gain repeaters can help, along with more cost effective, and small coverage output mini cells, have all certainly assisted and plugged gaps where economics dictate a larger and costly solution is not justified.</p>
<p>18. What kinds of measures would promote improved mobile coverage?</p>	<p>Imagine an Australian regional telecommunications market where Commonwealth funded assets were never privatised.</p> <p>Thousands of towers built by the Commonwealth, many predating mobile phone networks, that would be regulated to encourage competition.</p> <p>A sovereign legacy that would truly benefit, primarily regional Australia, and help grow economic development more justly.</p> <p>Imagine how that landscape may look now in so many parts of regional Australia – Regions operating on a greater level of equality of access and a choice of suppliers. Then imagine</p>

	<p>watching a game of footy with only one player on the park....</p> <p>The Commonwealth and States could focus their subsidisation programs on assisting new entrants to regional markets, entrants that wish to embrace competition and better service those desperate for enhanced service and coverage. And do so on an economically sustainable manner. The NSW Mobile Coverage Pilot is a great step forward in this regard. Encouraging greater collaboration and new deployment models that will benefit MNOs, MNIPs and ultimately consumers.</p> <p>Whilst government subsidy programs are great for making business cases to rollout service in regional areas more attractive, the assessment criteria need a significant overhaul. Simple changes will have a positive impact.</p> <p>[CIC]</p> <p>Operational expense, such as ground leases are an area that requires greater review and potential regulation, especially in regional areas where total cost of ownership is more challenging. Mobile phone infrastructure and coverage is often referred to as an essential service, yet still has number of barriers for deployment in some regional locations.</p> <p>Some private landholders see deployment of infrastructure as a significant revenue stream – rather than a benefit for the community and those that work and reside within the coverage footprint the asset provides.</p> <p>Further, attention needs to be given to the processes, access and fee structures associated with land within government control in relation to deployment of telecommunications infrastructure. In areas so desperate for improved services, red-tape and bureaucracy needs to be reviewed.</p>
<p>19. To what extent will the matters raised in the consultation paper impact, or be impacted by, the extension of 5G coverage?</p>	<p>5G deployment involves the deployment of additional active antenna units on existing infrastructure and the reuse of existing antenna that effectively shares spectrum with current technologies i.e 4G.</p>

	<p>Deployment of 5G is not about coverage extension. There is no doubt the race is on to have the “biggest” 5G network claim, yet to many users, especially those in regional Australia – it’s not what numeral precedes the “G”, it’s about having a useable “G”.</p> <p>In the areas that the market determines will have greatest, and profitable need, infrastructure, small and large, will be required to assist 5G coverage extension and thus user experience.</p> <p>What often happens during a generational change in technology, is a focus on upgrading existing assets and a move away from deployment of “new” infrastructure and therefore coverage expansion.</p> <p>Extending coverage footprint with investment in new infrastructure is often the first to suffer from limited investment during a technology generational change. The majority of investment maintained in this time, is likely to be that which is contracted by Commonwealth and State Governments blackspot programmes.</p>
<p>20. How are consumers impacted by a lack of mobile coverage? What are the impacts for indigenous people in regional and remote areas?</p>	<p>The introduction of Smart Phones and networks such as 4G, which truly brought usable mobile data capability, have changed the way users of mobiles operate.</p> <p>Now more than ever, these devices allow for not just the basics of voice and access to social media, they provide vital services like the ability to use tele health video technology – made more prevalent during the COVID-19 pandemic.</p> <p>Whilst many in Australia can enjoy the benefits of a reliable network, there’s significant areas of regional Australia that through lack of competition, often feel like they have stepped back to using 2G networks at best – great for voice and text but makes a smartphone pretty useless.</p> <p>Without competition, there isn’t a clear driver to enhance coverage and network performance. And consumers pay the price not just once a month, but every day.</p>

	<p>Lack of coverage includes the ability to reliably use a device legally when in a vehicle – maximising the downtime of driving to keep businesses connected. Major highways, secondary highways and rail corridors are all impacted, with rural and remote highways areas of greatest impact.</p> <p>Collectively, this is holding back economic development and making it tougher to reside and work in regional Australia.</p> <p>In recent years, providing mobile coverage into the more remote indigenous communities has become possible with the deployment of small cells using satellite backhaul.</p> <p>Optus changed the market by facilitating deployment in some of the most remote locations in Australia. This move then sparked a competitive market response, which has resulted in a number of indigenous and outback communities experiencing greater choice and network experience.</p> <p>Greater education should accompany deployments into indigenous communities to ensure the best possible outcome for all. It should also not be taken for granted that <i>all</i> communities wish to have advanced communications and dialogues with Traditional Owners and Elders should occur at every step within the process of network planning & deployment.</p>
<p>21. In what areas could mobile coverage be improved?</p>	<p>Whilst regional Australia has benefited from coverage expansion, often via government subsidisation of network deployment, there are still gaps in coverage, especially along highways and in rural areas.</p> <p>Public coverage maps generally show the extent of MNO network when being used “Outdoors”. There are significant gaps in network coverage that provides access inside buildings, tractors and in vehicles.</p> <p>Whilst the Commonwealth Blackspot Programs have had a positive impact, there are significant examples of where funds were provided to carriers to deploy network on infrastructure that is not fit for purpose. Whilst re-use of</p>

	<p>existing assets is a cost-effective way to expand mobile networks, an asset originally deployed for microwave transmission may not provide effective mobile coverage and vice-versa.</p> <p>Understanding an area’s objective for coverage is important. Talking with communities is one of the greatest ways to gain this knowledge. The many Regional Telecommunications Reviews are a great source of information, often highlighting the frustrations with telecommunications of those working and residing in Regional Australia and the impacts of not understanding and in some cases, ignoring their needs.</p>
<p>22. What are the benefits to the general public from the provision of temporary mobile roaming during emergencies? Are there any potential detriments?</p> <p>25. Are there limitations (eg. capacity) to current technology and business processes that would impact the ability for MNOs to provide mobile roaming during natural disasters and emergencies?</p> <p>26. Are there any likely impacts on quality of service if mobile roaming during emergency situations was enabled? What level of service should be enabled – voice, sms, data?</p>	<p>The benefits for all mobile users in the areas are almost immeasurable. To not allow emergency roaming is un-Australian.</p> <p>During emergency situations, such as natural disasters, we see how communities rally together to help each other out – not lock each other out.</p> <p>Field Solutions Group is rolling out 4G/5G based network in regional Australia and is willing to work with Government and Industry on its network being made available for emergency roaming in times of declared natural disaster or emergency.</p> <p>There is no doubt that mobile networks will often be stretched during times of emergencies as end users place greater demands for calls and data in an effort to keep updated and in contact with loved ones and emergency services.</p> <p>Measures can be put in place that prioritise certain types of traffic (Voice, Warning texts) and limit others for example (Video streaming services).</p> <p>Where technically possible, emergency sharing of spectrum could be enabled to assist with managing increased traffic demands.</p> <p>A willingness to cooperate within the industry, network equipment suppliers and government will go a long way to addressing these detriments. C-Level politics need to be put</p>

	aside and a “Helping ya mate” mentality needs to be on the table.
23. What are the benefits to emergency service personnel and organisations from the provision of temporary mobile roaming during emergencies?	<p>Maximising availability of any compatible mobile network is just another tool in the belt for “our” emergency service personnel and organisations (ESPO), many of whom are volunteers who may or may not reside in the area to which they are responding.</p> <p>All of our ESPO should be in a position that during an emergency situation, regardless of their mobile network provider, if there is available service from ANY compatible provider, they maintain access.</p> <p>And lets not forget, its not those in ESPO uniforms that are assisting in these times – everyone has their part to play; including heeding to the advice given by ESPO. And those instructions need to maximise every possible way they can reach intended audiences.</p>
24. What are the technical requirements to enable temporary mobile roaming during natural disasters and other emergencies?	<p>The 3GPP standards have all that is required to establish the technical requirements between carriers to facilitate roaming. These are no different to what would be required for a standard commercial roaming agreement.</p> <p>Government financial assistance may assist the initial set up between network operators, and then guidelines and processes put in place to ensure that network operators are always at the ready should an emergency be declared in a region.</p>
27. What are the protocols for declaring a natural disaster or emergency? How is this communicated and co-ordinated with mobile network operators?	<p>Government Emergency Services Agencies are best to respond in regard to declaration of a disaster or emergency situation.</p> <p>Field Solutions Group believes greater inclusion for non-MNOs is required for any level of communication and co-ordination during a natural disaster or emergency situation.</p>
28. What alternative solutions (other than temporary mobile roaming) could be considered to improve network resilience during or after a natural disaster or other emergency?	<p>Maintaining network up times, including restoration of service, is key during these times. Greater cooperation between Emergency Agencies, Government Departments and all MNOs and Fixed Wireless Access providers is key.</p> <p>There have been recent examples where this has worked well, however, there is always</p>

	<p>room to enhance this coordination work. Indeed, when you leave it the folk on the ground, theres a lot more inter carrier co-operation happening than some C-Level management may like to acknowledge.</p> <p>“Hardening” programs can go a small way to assisting with “up time” for telecommunications infrastructure, but many of these programs have excluded. There needs to be greater inclusion of all organisations that provide telecommunications in disaster prone regional Australia. telecommunication providers such as Field Solutions Group.</p>
<p>29. What are the costs involved in providing temporary mobile roaming during emergencies?</p>	<p>What is the cost for not providing temporary mobile roaming during emergencies?</p> <p>Assuming the interconnection and technical frameworks are in place, given the current market dynamics on capped pricing plans, the cost to carry traffic seems so insignificant compared to the benefits and outcomes.</p> <p>FSG would be prepared to work with government and industry on placing an appropriate cost that reflects actual network carriage costs.</p>
<p>30. To what extent can emerging technologies improve mobile coverage, including during times of emergencies such as a natural disaster?</p>	<p>There are already a lot of technologies and temporary infrastructure solutions that can be used during times of emergencies. These include, but not limited to:</p> <ul style="list-style-type: none"> • Use of Satellite Backhaul on mobile towers or to provide WiFi Access • Drop in temporary cell on wheels/skids to replace impacted equipment and infrastructure • Satellite Phones and message services • Drone technology to provide coverage

[ENDS]