

***CROWN CASTLE AUSTRALIA***

RESPONSE TO

THE DEPARTMENT OF  
COMMUNICATIONS, INFORMATION  
TECHNOLOGY AND THE ARTS

FOR THE

**MOBILE CONNECT INITIATIVE**

DECEMBER 2005



## 1. INTRODUCTION

Crown Castle is pleased to present this submission to DCITA in relation to the proposed Mobile Connect program. Since 2001, Crown Castle has invested hundreds of millions of dollars developing a business that allows co-users of telecommunications infrastructure an environmentally and economically efficient deployment of communications services throughout Australia. The business was formed through acquisitions of approximately 700 towers from each of Optus and Vodafone, resulting in a portfolio of approximately 1,400 Mobile Towers. This makes Crown Castle the largest independent owner of Mobile Towers in Australia, and the second largest tower owner behind Telstra. Crown Castle's infrastructure covers 86% of the population of Australia.

The central theme of this submission is that Crown Castle is advocating a portfolio based competitive grants approach that will allow DCITA to concentrate the Mobile Connect program investment towards:

- infrastructure that is technology independent allowing the market to determine the best technology to service the target region, thereby making the contributory capital a self sustaining investment;
- tower centric network elements, that are scalable and sharable, to improve the economics for wireless operators in these "marginal" regions;
- infrastructure that is controlled by a party independent of the carriers to promote sharing and competition;
- a holistic and portfolio wide rollout approach to achieve economies of scale and maximise efficiencies in construction; and
- capital assets that can be similarly leveraged by the Broadband Connect program to provide further synergies in Australian government spend.

Funding Mobile Tower Infrastructure will provide DCITA with the most effective, equitable and efficient means of meeting the principles of the Mobile Connect program, as outlined at the Connect Australia presentations in November 2005.

Crown Castle believes that it is uniquely placed to meet the government's objectives as it is the only market participant with its core focus being the efficient sharing of communications infrastructure. We have no other market distractions and the specialised expertise and capacity to deliver.

Crown Castle's recommendations are detailed in this submission. Please note that Crown Castle's paper has not attempted to specifically address every question raised in the "Mobile Connect" discussion paper. A number of specific questions have been separately addressed in Annexure A.

## **2. CROWN CASTLE'S PROPOSED FUNDING PRINCIPLES**

The intention of Crown Castle's proposed funding principles is to create a "community pool" of Mobile Tower assets. The principles that Crown Castle's proposal attempts to address include:

1. That regional communities need and deserve basic mobile voice and text messaging services;
2. Proposed coverage locations are not currently commercially viable for existing Mobile Carriers to operate and that partial capital contribution to carriers alone will not change this reality;
3. That specific carrier and or technology grants should be avoided where possible;
4. Contributions from State and Territory governments would increase the fund pool to increase the potential program rollout of the Mobile Connect program in alignment with agreed coverage requirements.

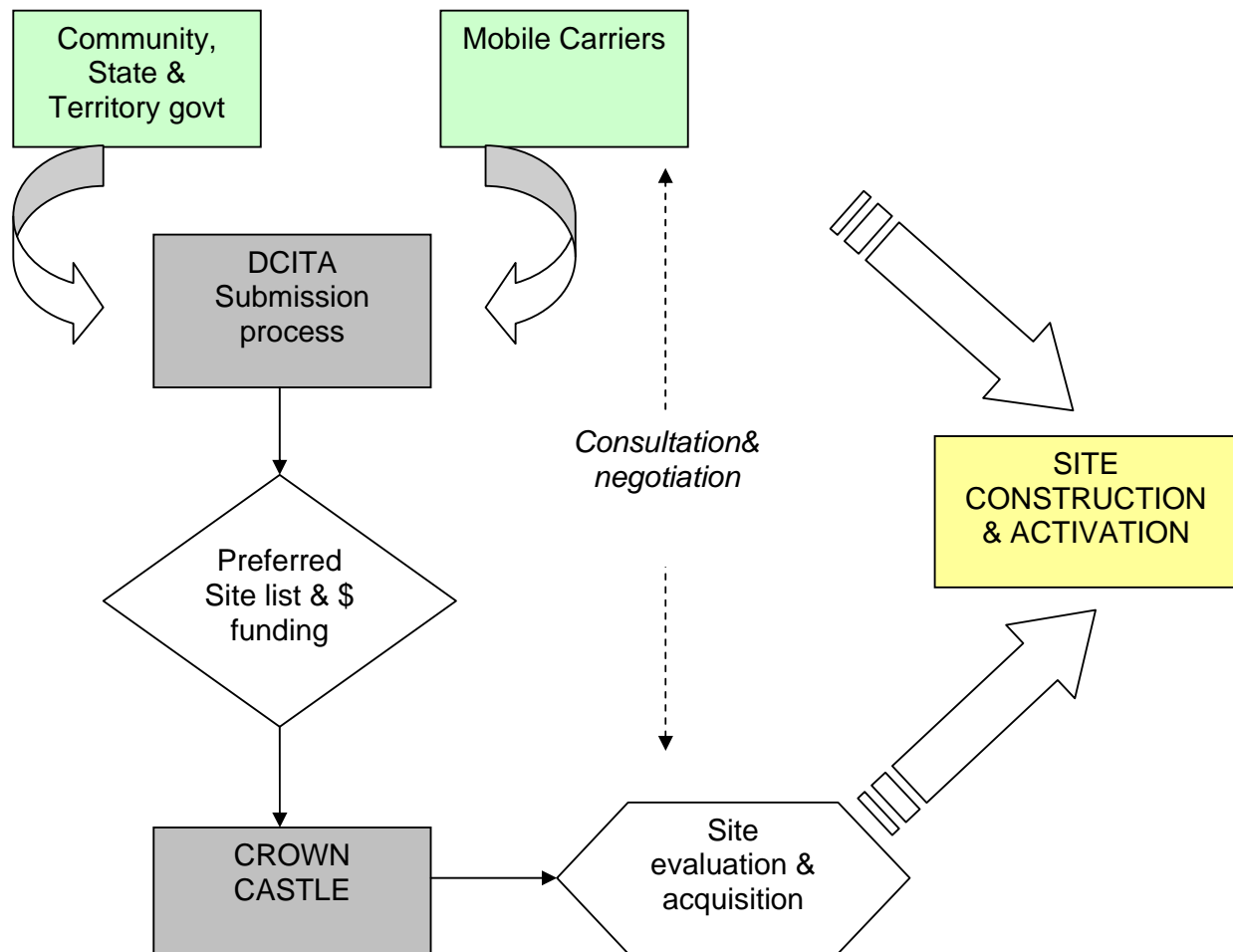
To address these principles Crown Castle is seeking a funding allocation of \$20m over the program life to build between 100 and 150 sharable Mobile Towers in DCITA approved locations

In addition, innovative and ongoing incentives will be necessary to promote these Mobile Connect coverage objectives to Mobile Carriers. One such incentive would be to:

1. allow a carrier's operating costs specific to nominated locations to be double deducted from assessable USO revenues; and
2. rebate once off capital deductions.

Accommodating these features in USO calculations would not reduce the overall annual target contribution, but would reduce the proportional contribution of investing carriers, thereby providing incentive to spend on network infrastructure in regional areas.

Drawing on these principles, Crown Castle advocates the following method for managing the process of selecting and funding the construction of a portfolio of regional Mobile Towers.



The proposed process can be described in summary as:

- Agreed unit rate for funding: DCITA and Crown Castle would agree the specifications for a “standard” Mobile Tower unit, and a fixed contribution amount of funding that will apply to each individual unit. Based on the total amount of funding allocated by DCITA, this will then determine the total number of sites to be constructed by Crown Castle.
- Submission process and Site selection: DCITA reviews and evaluates the community, State and Territory government and Australian government submissions and approves the specific site locations for each applicant.
- Mobile Carriers submit to DCITA regional coverage ambitions they would be prepared to take the lead on. The DCITA then nominates its preferred list of coverage locations. Sites on the finalised site list are then provided to Crown Castle with the appropriate funding allocation.
- Site evaluation and acquisition process: Landholders are approached and negotiations undertaken to secure (in most cases lease) the site.

Relevant planning approvals are obtained for construction. Once approval is obtained a minimum 10 year lease term is negotiated with the initial Mobile Carrier and subsequent sharing carriers.

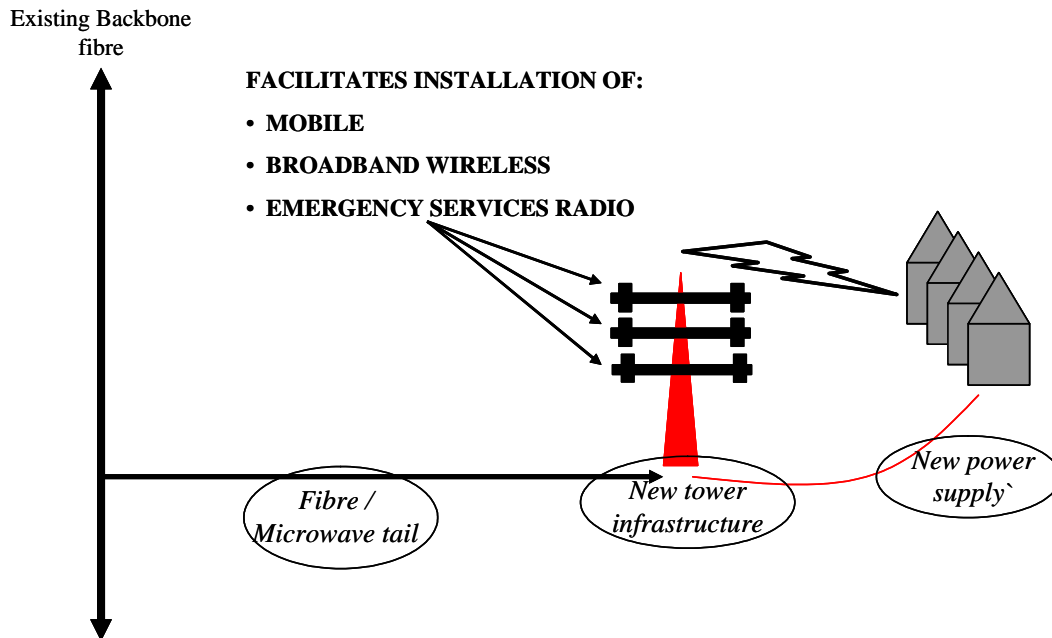
- Site Construction and Activation: Crown Castle undertakes the construction of the Mobile Tower Infrastructure sites and facilitates the installation of the mobile equipment on the site. The site is then ready for activation and use by customers.

### 3. THE ECONOMICS OF MOBILE NETWORK DEPLOYMENT

At least 60% of total capital expenditure for a Mobile Tower site can be incurred in:

- Site location and acquisition;
- The construction of the equipment tower; and
- Upgrading and access to power supply.

Each of these investment items is common regardless of the technology or service (eg mobile, broadband, radio networks) being deployed. Accordingly Crown Castle believes that the most equitable and economically efficient way for the Mobile Connect program funds to be invested is in the Mobile Towers as detailed in the diagram below. This investment provides a core platform that would markedly improve the economics for a carrier considering providing services to the area.



*This structure represents readily available infrastructure that can significantly improve the economics for marginal areas and provide a technology neutral platform for decades to come*

## **4. EQUITABLE & SUSTAINABLE INVESTMENT DECISIONS**

DCITA has stated that the objective of Mobile Connect program is to “implement a national approach that best meets the social and economic needs of regional Australia in relation to mobile coverage”. Crown Castle believes that this objective can be met if the Mobile Connect program investment:

- Is economically efficient;
- provides market equity; and
- forms the basis for sustainable business opportunities.

Crown Castle believes that this proposal provides an effective way of achieving these outcomes.

### **4.1. *Economic Efficiency through technology neutrality***

The benefits of investing in Mobile Towers outlined above are that it offers an effective technology neutral platform for not only the initial provider of services, but any additional carrier that wishes to access the site. If this was to occur, both carriers will get the effective benefit of the Mobile Connect program subsidy.

In addition this style of investment also provides the benefit of scalability and encouraging innovation. This is because each carrier has the same incremental cost of entry (depending on the equipment) and can access the site simply by installing and configuring its respective equipment.

Conversely if the Mobile Connect program funds were invested in service specific equipment such as panel antennas or mobile electronics equipment, then this investment is only available to that carrier. It cannot be utilised by a competitor or the provider of wireless broadband services. To date network roaming has not been successfully adopted by Mobile Carriers for government funded infrastructure.

### **4.2. *Market Equity through open access to infrastructure***

It is apparent that the telecommunications needs of regional Australia will be maximised where there is a diversity of services and some opportunities for future competition. While government funding in this area has traditionally gone to individual carriers (Vodafone under the Rural Highways Program, Telstra towards extending CDMA coverage, and numerous providers under HiBIS), Crown Castle believes that a more equitable outcome can be achieved by ensuring these assets are maintained in the form of an open access network.

Providing funding direct to carriers may actually discourage the efficient sharing of infrastructure, as infrastructure sharing removes a barrier to entry for potential competitors. This situation applies equally to an applicant offering a different service to the incumbent, given the current convergence between services (ie 3G and broadband wireless services).

Crown Castle has created a successful business through the facilitation of site sharing by all wireless carriers including Telstra, Optus, Vodafone, Hutchison, Unwired, iBurst, state emergency services radio networks and many small regional carriers. These customers are attracted to Crown Castle sites due to the compelling price proposition of shared sites over the cost of carrier owned and operated sites.

For any sites where the Mobile Connect program contributes, Crown Castle would undertake to maintain attractive pricing for any carrier seeking access.

#### **4.3. *Ensuring a sustainable investment***

It is understood that DCITA is concerned that some of the recipients of funds under the HiBIS scheme may not be economically viable in the long term. This is due to the nature of small speculative businesses having a lower cost base that enables them to set up in regional areas and to take advantage of HiBIS. If these businesses do cease to trade, then the value of the Government's contribution is lost. This type of situation would therefore fail to meet DCITA's objective that the funds be invested in a sustainable manner.

The alternative for the Mobile Connect program is to invest funds in an established and secure business, and towards infrastructure that survives any business failures. It is recommended that Crown Castle would offer a much more sustainable vehicle for these investments. This is because:

- Crown Castle has the financial backing of the \$US 6.6 Billion US listed Crown Castle International;
- DCITA would be investing in assets utilised by a community rather than an individual carrier's assets. This means that operational risk is passed to Crown Castle, but still provides significant incentives for smaller carriers to enter the market; and
- the Government's investment survives any business failure by these operators and will still be available for the provision of any future services.

## **5. LEVERAGING THE GOVERNMENTS INVESTMENTS**

### **5.1. *Broadband Connect***

This proposal would apply equally to meeting many of the objectives of the Broadband Connect program. Crown Castle believes that both the Mobile Connect and Broadband Connect discussion papers do not address the significant potential synergies between the two programs. It is recommended that the evaluation criteria for assessing submissions should give priority to those proposals that offer benefits to both initiatives. Further, more funding should be made available under the Mobile Connect program to carriers who undertake to provide broadband services (in addition to mobile services) at a later date.

### **5.2.            *Satellite handset subsidy***

Irrespective of Telstra's progression towards 3G 850UMTS, increasing the regional and rural terrestrial GSM network will improve the airtime cost base for Satellite phone users. Simply put, the more GSM roaming opportunities for Satellite users, the better cost optimisation for users.

## **6.    CONCLUSION**

In summary Crown Castle recommends that for DCITA to optimally achieve the objectives of the Mobile Connect program, fully funded Mobile Tower infrastructure is essential in providing improved mobile voice and text messaging services to regional Australia.

Crown Castle would welcome the opportunity to discuss this proposal personally with the Mobile Connect DCITA team to explore the potential that would be realized from instigating this proposal. Any queries may be directed in the first instance to Mr Udhay Mathialagan – Director Strategic Development and Commercial Operations on (02) 9495 9016.

## ANNEXURE A – RESPONSE TO SPECIFIC QUESTIONS IN THE “MOBILE CONNECT” DISCUSSION PAPER

<p>1. How will the Australian Government achieve the greatest benefits from Mobile Connect?</p>	<p>The greatest benefits will be derived from a program that:</p> <ul style="list-style-type: none"> <li>• Maximises Economic efficiency by being technology neutral;</li> <li>• Promotes market equity by investing in infrastructure that is operated by a neutral party under an open access regime; and</li> <li>• Provides an investment environment that is truly sustainable</li> </ul> <p>Crown Castle believes that its proposal is an effective means of achieving these aims.</p>
<p>2. How can the Government maximise additional opportunities for terrestrial services arising from changed market structures, co-funding arrangements and linkages with other Australian Government programs?</p>	<p>Additional opportunities for wireless telecommunications will be maximised where the government invests both Mobile Connect and Broadband Connect funds towards Mobile Tower Infrastructure that is available for sharing by different competitors, services and technologies.</p>
<p>4. How could the Mobile Connect program be structured to encourage carriers to further extend their regional mobile phone networks?</p>	<p>Mobile networks have not been rolled out to many regional areas due to their marginal economics. Crown Castle believes that the economics of marginal areas can be significantly improved through the provision of Mobile Tower Infrastructure. This provides an effective subsidy to all potential carriers, not just the first carrier in that area.</p>
<p>6. Can state and territory governments identify priority regions or locations for further terrestrial mobile phone coverage?</p>	<p>It is believed that DCITA, via the Mobile Connect submission process is in the best position to identify the priority regions to benefit from terrestrial mobile coverage. This process will provide a good indicator of market demand and the preferred areas, and then rank these on an appropriate merit system. Merit could be based on a mix of criteria including maximizing population coverage, access to alternatives or likelihood of no commercial rollout occurring in the medium term.</p>
<p>8. What are the best ways to support the establishment and operation of terrestrial mobile phone services in smaller population centres?</p>	<p>Crown Castle believes that this aim is most effectively achieved through the implementation of the development of Mobile Tower Infrastructure in line with the principles outlined above at section 3.</p>
<p>12. What should be the</p>	<p>Crown Castle believes that new or improved coverage</p>

Government's priority for funding under the initiative?	to small population centers is the optimum positioning for infrastructure funding grants.
13. How can the Government maximise competition in the provision of services under Mobile Connect?	By directing funding towards infrastructure that is technology neutral, controlled by a competitively neutral third party and capable of being shared on an open access basis.
14. What are the likely future technology paths for mobile telephony?	Mobile telephony is branching into broadband, particularly internet, VoIP and video. Digital radio and TV are also wireless variants that are delivered in same manner as mobile telephony.
16. How should the Government weight the various factors?	Crown Castle believes that the selection of the preferred strategy should be weighted equally to: <ul style="list-style-type: none"> <li>• Maximizing economic efficiency</li> <li>• Promoting market equity; and</li> <li>• Sustainability</li> </ul>
17. Which approach would be most effective in achieving the program's objectives?	Crown Castle believes that this aim is most effectively achieved through the implementation of the development of Mobile Tower Infrastructure in line with the principles outlined above at section 3.
19. How should the Government handle situations where multi-site proposals and single site proposals are submitted?	Crown Castle would support the view that single site proposals are generally an inefficient way to allocate limited available resources. Conversely, it is Crown Castle's experience that a multiple site "portfolio" approach introduces both economies of scale and competitive pressure on construction tenders. In addition, the operation and maintenance of infrastructure is also better managed on a portfolio wide basis – with similar efficiencies being gained. Planned maintenance programs are similarly improved though economies of scale and competitive pressures on contractors. Crown Castle is in the unique position in Australia of generally being the "first point of call" when carriers (other than Telstra) are seeking wireless sites. This is due to the ease of accessing a large portfolio of sites, with all technical information and characteristics on sites available electronically for a desktop review. This presents another benefit of a portfolio approach to allocating sites.
20. Are there other approaches that would achieve the program's objectives?	While there are a number of other approaches that may be taken towards the allocation of Mobile Connect funds, it is believed that the Crown Castle proposal represents the most efficient use of the limited resources. This means that the public utility gained from utilising public funds can be maximised in a transparent and equitable manner.