

15 September 2020



bai communications

Department of Home Affairs

By e-mail: [ci.reforms@homeaffairs.gov.au](mailto:ci.reforms@homeaffairs.gov.au)

Dear Madam / Sir,

Protecting Critical Infrastructure and Systems of National Significance Consultation Paper

BAI Communications Australia (BAI) welcomes the opportunity to provide a response to the Protecting Critical Infrastructure and Systems of National Significance Consultation Paper.

BAI Communications is a 'neutral host' communications service provider in Australia, USA and Canada, and provider of communications services in Hong Kong. In this sense, neutral host means that BAI is a specialist communications infrastructure owner and operator, but is not itself a broadcaster or telecommunications carrier.

In Australia, BAI provides managed services and portal services to broadcasters (i.e. effectively fully or partially outsourced broadcast transmission services from a network of over 700 sites around the country), operations and maintenance services to emergency services communications networks operators (principally the NSW Government's Government Radio Network), as well as site access arrangements to telecommunications and radiocommunications operators.

In the USA and Canada, BAI Communications companies provide neutral host communications services including telecommunications, Wi-Fi, and emergency services communications within the New York City and Toronto subway systems.

BAI Communications has been majority owned by the Canadian Pension Plan Investment Board (CPPIB) since 2009. CPPIB is one of the world's largest institutional investors and is responsible for investing the assets of the Canada Pension Plan, providing retirement security for millions of Canadians. CPPIB is a significant investor in infrastructure, real estate and other sectors around the world, including in Australia.

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BAI believes strongly in the need for security and resilience of critical infrastructure, in all of its aspects. To this end, in April this year we made a submission to the Royal Commission into National Natural Disaster Arrangements highlighting areas of potential security and resilience improvement in broadcast, emergency services communications and telecommunications systems. This document is available on the Royal Commission web-site at <https://naturaldisaster.royalcommission.gov.au/system/files/submission/NND.001.00573.pdf>.

Over recent years, BAI has participated in the Trusted Information Sharing Network (TISN) for Critical Infrastructure Resilience Communications Sector Group (CSG) and the Space Cross Sectoral Interest Group (CSIG).

### Critical Infrastructure Assets and which entity to regulate

BAI understands that the current consultation is the first phase of this process and that the Government aims, among other things, to determine as part of this consultation how to determine which entities within the identified sectors should be regulated. BAI is part of the communications sector and we see the impact of this legislation and subsequent regulation largely on our participation in the broadcast industry. However, the principles proposed in the scenarios below for determining which entity to regulate also apply to both the emergency services and telecommunications sectors where we also participate.

Whilst the discussion paper is unclear as to which entity is proposed to be regulated, the Communications Sector Workshop held on Tuesday 1 September and documentation dated 2 September 2020 do provide a suggested approach to identification of entities to be regulated.

For the broadcast sector, from the Workshop documentation, the proposed critical infrastructure assets were:

Assets, systems or networks that enable licensees to meet emergency warning obligations under section 61CD and/or section 130ZZB in the Broadcasting Services Act 1992

These clauses identify Commercial Radio broadcasters, Commercial Television broadcasters, National broadcasters and Subscription Television broadcasters.

In the Workshop documentation, the proposed regulated entity is:

The entity that holds a broadcasting transmitter (apparatus) licence (as granted by the ACMA under the Radiocommunications Act 1992 (Cth))

There is some merit in this approach (Licence-based Regulatory Approach) as it aligns the emergency warning obligations and the regulated entity as the holder of the apparatus licence. However, in a significant number of cases, the holder of the apparatus licence (the broadcaster) does not own the assets which are used for this transmission. It is expected that under this scenario, whilst the asset owners would not be directly regulated, they would be seen as part of the broadcaster's supply chain and the broadcasters would need to satisfy themselves as to the security and resilience standards of their suppliers.

BAI believes that a deeper understanding of the broadcast infrastructure environment would assist in determining which assets are truly critical and therefore determine the asset owner or controller to be regulated. The schematics provided in Appendix A provide a high-level overview of the broadcast infrastructure necessary to provide emergency broadcasting (Schematic 1) and the assets on site which comprise a transmission facility (Schematic 2). It should be noted that most broadcasters have multiple studios which can provide alternate program feeds to the local transmission sites. Naturally, BAI would be happy to provide any further background or information to facilitate this understanding.

At the other end of the spectrum, the Government may wish to regulate all entities which own assets in this environment (Comprehensive Regulatory Approach). This approach would encompass broadcasters, playout facility operators, telecommunications operators (although separately identified as a critical sector), broadcast transmission service providers and likely hundreds of site owners and controllers. This would ensure that Government had a clear picture of the security and resilience of the complete broadcast chain, but may be impractical.

BAI recommends an alternate approach, which minimises the number of entities to be regulated, where the owners of the transmitter assets whose use is authorised through the broadcasting transmitter (apparatus) licence are regulated (Transmitter-based Regulatory Approach). Other assets used to transmit the service as shown in Appendix A Schematic 2 such as the tower and antenna, if not owned by the regulated entity would be captured as they are critical parts of the regulated entity's supply chain. This approach may be augmented through regulation of television playout facilities (a very small number of entities with complex equipment) should the Government also wish to address how this content is collated and encoded. Telecommunications entities are likely to be separately addressed.

For any approach, BAI believes that all entities which meet the definition of a regulated entity in the legislation should be regulated and minimum thresholds should not be applied. The suggestion that operation of a small number of assets or that the assets only address a small number of people should not remove the need for the same level of legislative classification. The regulations should be where the proportional approach to asset protection and resilience are captured.

## Industry co-designed sector specific standards

BAI supports the need for industry to be involved in determining the appropriate standards for their sector. BAI supports the approach that the regulated entity / entities within the sector should develop these standards in conjunction with the regulator. We also believe that there would be value in consulting on these proposed standards with the customers and suppliers of the regulated entity to ensure the whole eco-system is aware of the proposed new standards.

## Costs of any "uplift"

BAI believes it is reasonable that Government could expect industry to comply with "best practice" international standards such as ISO 27001 Information Security Management at industry's cost. However, should the Government require a higher standard or impose additional reporting requirements, BAI believes that Government should pay for any uplift over and above an internationally recognised, standards-based approach.

Should the Government agree with the above approach, BAI believes that this initiative can provide a positive economic impact through job creation and skill enhancement from this Government investment.

If the Government imposes additional costs on industry without providing aligned funding, industry will make decisions across their whole portfolio of investments to ensure legal compliance but this is likely to negatively impact investments in other economically positive areas.

BAI notes that the actual costs of compliance will not be known until both the legislation is finalised to provide clarity as to which entities are to be regulated AND the scope of the obligations are determined through the industry co-designed sector specific standards.

Based on our review of the information provided thus far and discussions with the Department of Home Affairs, BAI does not believe that the assets we own and control will fall within the definition of Systems of National Significance.

## Dependence on other industries

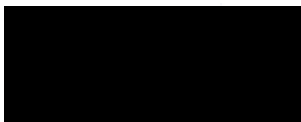
It should be noted that the broadcast sector has significant dependency on other key industries, including:

- Telecommunications systems
  - A broad range of telecommunications systems are used to provide content to broadcast transmission sites and provide monitoring and control including satellite, fibre, microwave and mobile networks.
- Electrical supply
  - Whilst all high-power broadcast transmission sites are supported by on-site standby power generators, this is not the case at many smaller sites. Recommendations on addressing this were part of our submission to the Royal Commission.
  - From an audience / community perspective, battery operated radios – particularly in vehicles – are common, however television receivers almost exclusively rely on domestic electricity supply.
- Diesel supply
  - As noted above, BAI's high power sites are supported by standby power generators. These typically have seven to ten days of on-site diesel capacity. After this period, diesel re-supply is required and this should be prioritised.

In summary, BAI believes there is benefit in Government having a clear picture of the security and resilience of the communications sector. We note that the definitions of regulated entities require further industry input to provide the appropriate level of regulation. Good corporate practice includes compliance with a range of internationally recognised standards for security and resilience. Should the Government require and uplift beyond this, then this should be funded by Government and could provide a positive economic impact.

Should you require any clarification or elaboration on the above, please don't hesitate to contact me.

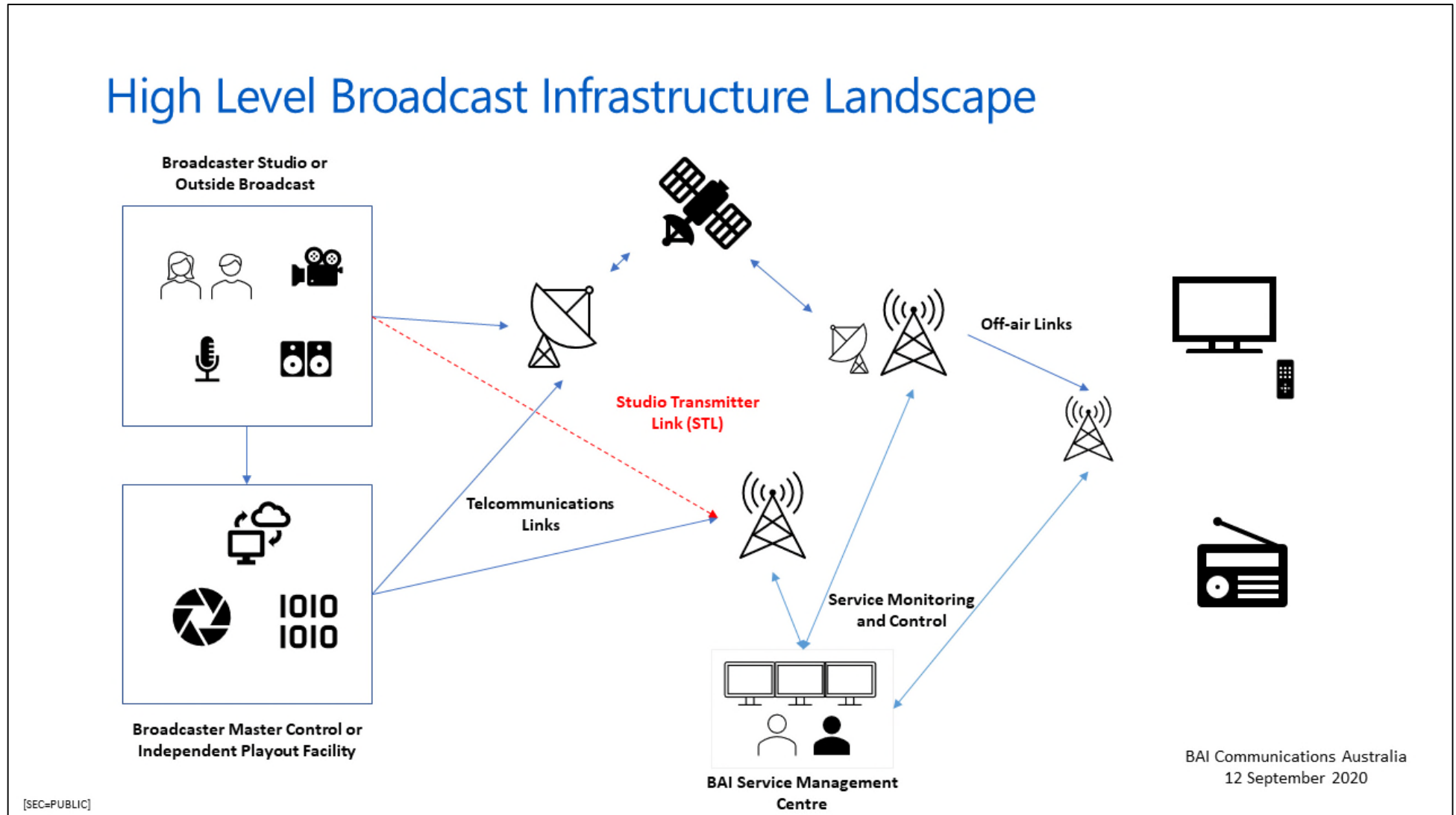
Kind regards



Stephen Farrugia  
Chief Technology Officer  
BAI Communications Australia

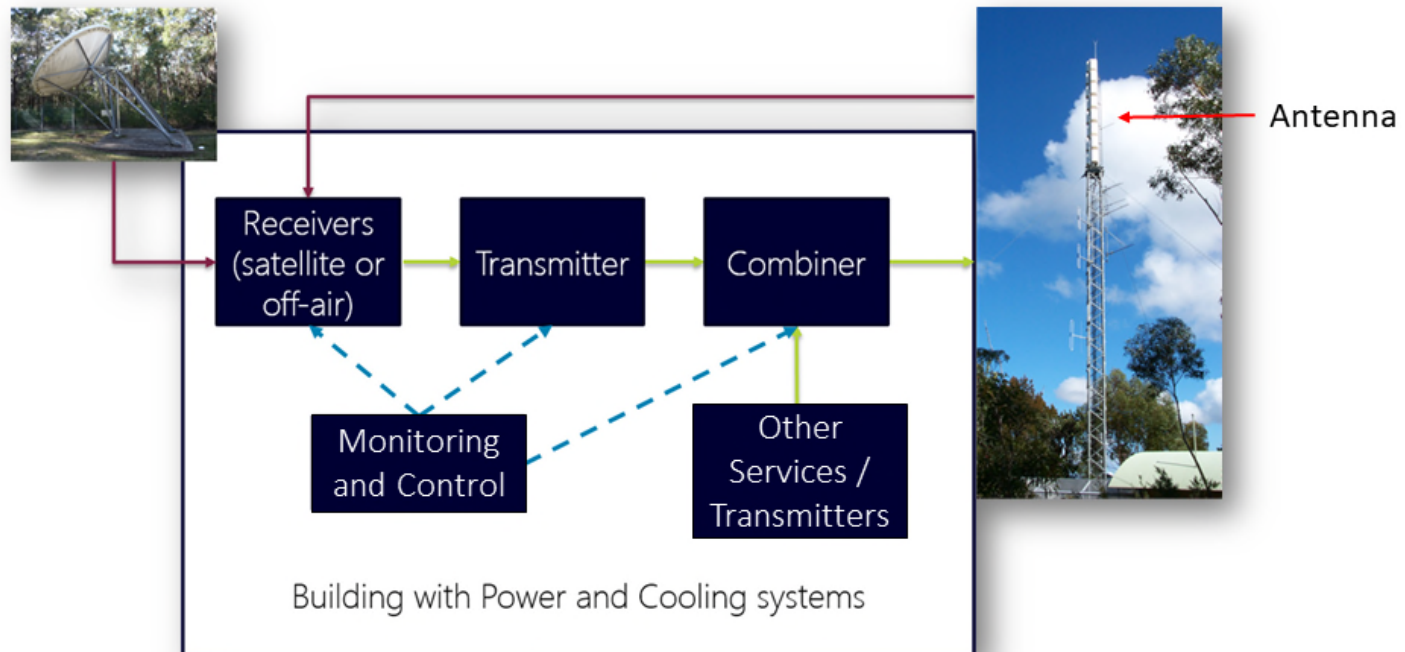
## Appendix A

Schematic 1:



Schematic 2:

# At the transmission site



BAI Communications Australia  
12 September 2020

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## **Appendix B: BAI responses to select questions**

4. What are the common threats you routinely prepare for and those you have faced/ experienced as a business?

BAI routinely prepares for fires, floods and cyclones which may, and sometimes do, impact our sites and the services we provide to our customers.

BAI also has an Information Security team who routinely monitor the security of the BAI communications and information network.

12. Are organisations you are familiar with already operating in-line with these principles, or do you think there would be a significant time and/or financial cost to meet these principles?

13. What costs would organisations take on to meet these new obligations?

BAI operations already align with the principles outlined under Initiative 1.

As noted in our submission to the Bushfires Royal Commission, it is not always possible to undertake necessary physical security improvements without broad Government support and that of adjacent landowners.

BAI believes it is reasonable that Government could expect industry to comply with “best practice” international standards such as ISO 27001 at industry’s cost. However, should the Government require a higher standard or impose additional reporting requirements, BAI believes that Government should pay for any uplift over and above an internationally recognised, standards-based approach.

17. Who would you consider is best placed to undertake the regulatory role for sectors you are familiar with? Does the regulator already have a security-related regulatory role? What might be the limitations to that organisation taking on the role?

The current regulator is the Australian Communications and Media Authority and they are likely to be best placed to undertake the proposed regulatory role for this security and resilience initiative.

19. How can Government better support critical infrastructure entities in managing their security risks?

Government can better support critical infrastructure entities through the provision of guidance on proposed baseline requirements, providing funding to support any uplift from an internationally recognised, standards-based approach, and facilitating the agreement with state and local government entities to allow secure perimeters (such as Asset Protection Zones for bushfires) to be established around critical assets.



33. What sort of legal protections should officers (both industry and Government) undertaking emergency actions be afforded?

If industry is directed by Government to undertake emergency actions, officers within industry should not be liable in any way, to any party for implementing the Government's directions.