



Australian Government Response to the Bean Review Final Report

Review into the Optus outage of 8 November 2023

April 2024

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Minister's Foreword

The 8 November 2023 Optus outage affected millions of Australians. It impacted public safety, personal finances and the broader economy. It resulted in considerable distress for many and damaged the community's confidence that they will always have access to critical services.

Australia's telecommunications infrastructure enables health and safety, economic activity, education, and social connectivity. It is critical we respond to the lessons of this incident to reduce the risk of further outages and the impacts they have on our community and the day-to-day services we rely on. This is why I commissioned Mr Richard Bean to lead a review of what industry, government and the community can learn from this outage, with a specific focus on emergency calls, customer communications, and complaints handling.

I thank Mr Bean and the Review team for their work on this review and acknowledge the considerable work collectively undertaken by industry, government agencies, state governments, consumer and business representative groups, and individual members of the public in providing submissions to the review.

The Government has agreed to all of the recommendations. The review has identified a number of areas for improvement in existing legislative and regulatory requirements and opportunities for greater collaboration and information sharing between the many actors involved in the telecommunications ecosystem. This is particularly relevant to the Emergency Call Service and its resilience in times of major network outages.

I will be tasking my Department with a range of activities to implement these recommendations. The recommendations also require action from other government organisations, particularly the ACMA. I expect my Department and the ACMA to work together closely in fully implementing the recommendations of the review. It is critical that the legislative and regulatory framework protecting telecommunications consumers and enabling the Emergency Call Service meet reasonable community expectations. There are also a number of recommendations for Government which will require cross government collaboration and consultation between a number of agencies and departments.

The recommendations have considerable implications for mobile network operators, particularly with regard to information sharing. The Government acknowledges that it is not possible to guarantee there will never be another major outage, however there must be safeguards in place to prevent and/or minimise the significant disruption the community experienced on 8 November 2023. I expect industry to have regard for the seriousness of this disruption, specifically in relation to public safety, and as such, to cooperate with the implementation of these recommendations.

The Albanese Government is committed to ensuring the Emergency Call Service is readily available for all people in Australia, and that consumers and businesses have certainty of access to telecommunications services. I have asked my Department to provide me with regular updates on the progress of implementing these recommendations and will announce any significant updates as they occur.



The Hon Michelle Rowland MP

Minister for Communications

Functioning of Triple Zero

Recommendation 1

Mandatory requirements should be put in place, by augmenting existing requirements or otherwise, to:

- More clearly and explicitly articulate precisely what is expected of network operators in regard to ensuring calls are delivered to Triple Zero
- Include specific obligations that network operators will towers in the event of loss of connectivity to a core network, ensuring calls to Triple Zero can be carried by other networks.

Agreed.

It is important to ensure that all appropriate measures are taken to ensure that networks are capable of delivering calls to Triple Zero, and that all parties responsible for the delivery of calls, have a clear understanding of their obligations.

The Government acknowledges that the particular set of circumstances that led to the 8 November outage may not occur again, particularly given the shutdown of 3G networks. Regardless, the Government will Direct the ACMA, to work with providers and other parties to review existing obligations on carriers to ensure that these requirements are clearly and explicitly articulated. For example, requiring network operators to wilt towers in the event loss of connectivity to a core network. This will be implemented in conjunction with recommendation 18.

These specific obligations should be set out in the most appropriate instrument, either through enhancing the existing Emergency Call Service Determination 2019 (ECS Determination) or through the development of an industry standard. The Government's expectation is that this work proceeds in tandem with work to acquit other recommendations with a view to enhanced obligations being in place by 30 June 2025.

Recommendation 2

Establish a Triple Zero custodian, with oversight of and overarching responsibility for the efficient functioning of the Triple Zero ecosystem, including monitoring the end-to-end performance of the ecosystem.

There are a number of ways this could be achieved, including by establishing a new body or enhancing the role of an existing body. It would not be a regulatory function: where matters were identified for change, existing bodies would be responsible for implementation.

Agreed – subject to further investigation and consultation.

The Government recognises the need for a single organisation with oversight of the Emergency Call Service, with a key role in coordination and decision-making authority during crisis events impacting the entire ecosystem.

Australia is not the first jurisdiction to identify the need for such an oversight body, both the United Kingdom and New Zealand have indicated that they will work towards establishing an overarching body or committee to ensure visibility and coordination of the emergency call ecosystem.

While the Government considers this a priority recommendation, further investigation and stakeholder consultation will be required to determine the appropriate structure of oversight. In the first instance the

Government recommends that a steering committee be established to scope the role, functions and structure of the Custodian concept and to also consider whether it should be established as a new agency, or as a new function within an existing organisation or even across organisations.

The Government is cognisant of the role played by the ACMA as the industry regulator and the Department of Infrastructure, Transport, Regional Development, Communications and the Arts role as contract manager of the Telstra Universal Service Obligation Performance Agreement, and as such considers that a separate body should convene the steering committee. The Government is of the view that the Telecommunications Industry Ombudsman is appropriately placed to lead this work given its unique role as an independent body advocating for industry improvement and its familiarity with the needs of the community. The work of the TIO will be supported by the Department. It is expected that the steering committee would comprise representatives of the various parties in the ecosystem, including service providers, the ECP and ESOs.

Recommendation 3

To ensure (to the extent possible) continuous access to Triple Zero, carriers must conduct 6-monthly end-to-end testing of all aspects of the Triple Zero ecosystem within and across networks. The end to end detection testing should include:

- Network functionality and capability during outages of various types
- Behaviour of all known devices in different circumstances
- Interoperability of all parts of the ecosystem (from originating carrier, to ECP, to ESO answering point) during outages.

Any identified deficiencies must be reported to the ACMA and be accompanied by a remediation plan with timetable.

This requirement should be mandated in a standard or determination.

Agreed.

While acknowledging the carriers currently undertake testing of devices and networks, the Review has identified there are significant gaps in the scope of this testing. Addressing these gaps must be treated as a high priority to ensure public safety during times of crisis, and to reduce the risk of device and network related outages. The current issues being presented by the closure of the 3G Networks and the impact of this on certain types of handsets demonstrates that the current testing regime is not well adapted.

The Government supports the development of an industry code, providing industry with an opportunity to identify how a sustainable comprehensive testing regime could be implemented to address these gaps. The Government's expectation is that this code should be in place within twelve months of the release of this response, and will consider regulatory interventions if a robust industry code is not in place at that time.

Recommendation 4

If this testing does not include devices supplied by the customer (i.e. 'Bring your own device') then information should be provided to those customers warning that those devices may not have been tested in emergency scenarios.

Agreed.

The Government understands that carriers are unable to test every possible device and device configuration due to the prevalence of customer supplied devices. In these circumstances it is appropriate for carriers and carriage service providers to advise customers of the potential limitations of these devices.

This Government supports this recommendation being implemented in conjunction with recommendation 3.

Recommendation 5

Require carriers, through a standard or determination, to share real time network information detailing outages with relevant emergency services organisations and other appropriate entities, including the body referred to in Recommendation 2.

Agreed.

The Government understands the importance of real time network information to Emergency Service Organisations in crisis situations. These organisations play a vital role in ensuring public safety and immediate information sharing that enables a shared understanding of events as they occur is critical to their operations. Advice received from these organisations, demonstrated the need for more and better information to be shared by telecommunications providers and the ECP. This recommendation must be implemented as a priority.

The Government will Direct the ACMA to either develop an industry standard, or amend the ECS Determination, to include these new rules. The Government's expectation is that the instrument should be in place within twelve months of commencement of drafting.

Communications Alliance has developed an Industry Guideline G665:2022 – Telecommunications – Facilities Information sharing, to facilitate efficient information sharing between the telecommunications industry, energy suppliers and relevant Government agencies in relation to the sharing of information regarding telecommunications facilities. This guideline could form a base for the new set of rules about data sharing between the telecommunications industry and Emergency Service Organisations.

Recommendation 6

Require providers, through a standard or determination, to report to the ACMA and the Department, within a mandated timeframe after a major outage, detailing its causes, steps taken to resolve it, the impact on Triple Zero, and a clear and detailed plan, with timeline, to address issues identified and avoid similar outages in the future.

Agreed.

The Government acknowledges that in some instances providers notify the ACMA of outages, however this is not a requirement, nor is there any requirement about what level of information these notifications include. Given the significance of any outage that impacts the emergency call service, it is reasonable to expect carriers should be required both to report the outage within a mandated timeframe, and to develop a plan to prevent such an outage from occurring again and report this to the regulator and the Department. Such a plan may need to be submitted at a later time than the initial mandated report of an outage occurring.

The Government will Direct the ACMA to either develop an industry standard detailing a mandatory notification framework, or amend the ECS Determination to include these requirements. The Government's expectation is that new rules should be in place within twelve months of commencement of drafting.

Recommendation 7

Combine and expand existing disruption protocol instruments to cover all matters relevant to outages in any element of the Triple Zero ecosystem.

There are currently multiple obligations related to actions taken during and after network disruptions. Combining these obligations in one document and ensuring they cover the system from end to end would greatly improve understanding and clarity of responsibility.

Agreed.

The Government agrees that there are a number of different disruption notification protocols in operation developed variously by Government, Communications Alliance and the ECP. Each of these documents has different triggers for action and requires different actions from participants in the telecommunications industry. The Government acknowledges that to ensure shared understanding of expectations and obligations, there is benefit in combining these into a single document.

The Government will Direct the ACMA to establish a single comprehensive disruption protocol, through either an industry standard or through the inclusion of new rules in the ECS Determination. The Government's expectation is that new rules should be in place within twelve months of commencement of drafting.

Recommendation 8

The Department should review the contract under which Triple Zero is delivered, with a specific focus on the central role of the ECP within the ecosystem.

The review should consider, in light of the recommendations of this Review relating to the Triple Zero ecosystem, including Recommendation 2, governance structures, and separating financial matters from other ECP obligations.

Agreed.

The Triple Zero ecosystem involves a complex mixture of legislation, regulation, and contractual requirements. The ECP is a critical component in this ecosystem and the contractual arrangements between the Commonwealth and Telstra, as the ECP, contains key provisions about the functions of the emergency call service. While the Government acknowledges the contract is a commercial arrangement, the commercial arrangements should not drive or impede the performance or efficiency of the service.

As such, the Government will initiate a review of this contract in line with this recommendation. Subject to negotiation and agreement with Telstra, the Government anticipates any changes to the contract to be implemented within 12 months.

Role of government in managing and responding to a national service outage

Recommendation 9

The Protocol for Notification of Major Service Disruptions (the Protocol), should be improved and augmented with clear and detailed requirements for Government communication and collaboration during telecommunications outages through a central coordination point in Government.

This should cover communication and collaboration with carriers, relevant Ministers, Commonwealth, state and territory government agencies, TIO, the Australian Consumer and Competition Commission (ACCC), ACMA, Emergency Service Organisations (ESOs) and other relevant parties.

The Protocol should also be closely aligned with the Australian Government Crisis Management Framework (AGCMF) and the National Coordination Mechanism (NCM).

Agreed.

The 8 November outage demonstrated the need for clear and prompt communication between government agencies, across governments, and with the telecommunications industry. During outages that have a significant impact on the functioning of the telecommunications network and flow on effects to critical government services, there must be a shared understanding of the extent of the outage, what services are impacted and regular updates as events progress.

The Government has Directed the Department of Infrastructure, Transport, Regional Development, Communications and the Arts to implement this recommendation in consultation with the Department of Home Affairs and other affected entities and with regard to recommendation 7, and will seek to finalise the recommendation within 12 months. The Government notes that the AGCMF is in the process of being

reviewed by the Department of the Prime Minister and Cabinet and it will be important to coordinate these work streams.

The adequacy of requirements for customer communication in national service outages

Recommendation 10

The ACMA should develop a standard or determination requiring carriers to communicate specific information to customers during and about outages. The Communications Alliance Emergency Communications Protocol – Industry Guideline G663:2022 or one or more of the carriers' existing internal communications protocols could be used as a base but there needs to be an explicit focus on communications between the affected network provider and its customers as well as other stakeholders.

Agreed.

The Government acknowledges the public's considerable dissatisfaction with Optus' communications on the day of the outage. The strong reliance on communications services for health and safety, work, business activities, and education. The disruption an outage brings to people's lives is understandably frustrating and there is a strong, and reasonable demand for service providers to communicate with customers in a timely manner about outages. This enables consumers to make what alternative arrangements they can and helps alleviate the uncertainty that develops without this information.

The Government will Direct the ACMA to develop an industry standard requiring telecommunications providers (carriers and carriage service providers) to communicate specific information to customers, during and about outages. The Government's expectation is that this standard should be in place within twelve months of commencement of drafting.

Recommendation 11

The Department should develop further and promote the educational initiatives developed in 2020-2022 to assist the public, businesses and other organisations to prepare for and recover from outages as a result of natural disasters. These materials should be reviewed and enhanced to apply to a broader range of scenarios including major network outages. The Department should promote these materials to the community.

Agreed.

The Government is pursuing the recommendations in this report with an aim to reduce the likelihood of a future mass communications outage, however it acknowledges that it is not possible to guarantee such an outage will never happen again. As such, it is appropriate for the Government to undertake public awareness initiatives to ensure the community has the right resources to prepare for, and respond to, any future disruptions that may occur.

The Department has previously developed materials which can be updated, enhanced and disseminated more broadly in response to this recommendation.

The Government commits to implementing this recommendation within the next 6 months.

Complaints and compensation

Recommendation 12

The Complaints Handling Standard and related Record Keeping Rules should be amended to ensure they account for the impacts of network outages and that the definition of complaint in the Standard meets community expectations in relation to crisis events.

Agreed.

The Government acknowledges the recommendations made by the TIO in relation to the Complaints Handling Standard. In considering the 8 November outage, it is appropriate to consider if the standard, and its related Record Keeping Rules, meet community expectations, specifically in regard to their recourse when impacted by outages. It is important that the standard provides clear guidance to service providers, and enables efficient processes to escalate complaints for review when necessary.

The Government will Direct the ACMA to review the standard and make appropriate changes within 12 months. The ACMA will consult with industry and the TIO to update the standard and its related rules.

Recommendation 13

An industry wide standardised approach to the form of resolutions available to consumers affected by a crisis or large-scale outage should be implemented.

This standardised approach should address the possible forms of compensation and penalties applicable to loss of service during outages, enabling the TIO to address mass events without requiring large numbers of individual complaints, investigations and resolutions. While it is not intended that this measure replace the Customer Service Guarantee (CSG), it could provide a similar framework through which outages affecting more than fixed line voice services are considered.

Agreed.

The Government acknowledges the recommendations made by the TIO in its submission to the Review in relation to a mandated industry wide approach to this issue. As noted by the Review, in the event of any other significant telecommunications outages, this recommendation would enable a fairer mechanism for consumers to seek compensation to known disruptions and reduce wasteful and inefficient use of resources for industry and the TIO. In keeping with the principles of industry-based consumer dispute resolution schemes, any such framework would be considered by the TIO as part of its assessment of what is fair and reasonable in the circumstances.

The Government will implement this recommendation within 12 months, subject to an assessment of whether new legislation is required to support the recommendation. The Department will work with the TIO, the ACCC and the ACMA and consult with industry on an approach to consumer recourse following a major outage.

The Government notes the reference in the Report to the designated complaints function soon to commence with the ACCC. It is important to note that this was referenced as an example and that the ACCC wouldn't be able to consider and make determinations about compensation for consumers or businesses impacted by the Optus Outage, as this would not be a matter that related to potential breaches of, or the ACCC's powers or functions under, the Competition and Consumer Act.

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Other: Resilience and interdependencies

Recommendation 14

Work currently being undertaken on roaming during natural disasters should be followed by work on temporary roaming during outages caused by other events, such as those which occurred on 8 November 2023. That work should be undertaken with reference to international experience as to cost and feasibility.

Agreed in principle.

The Government acknowledges the interest in implementing temporary roaming during outages, but also notes industry concerns about the feasibility of implementing these arrangements, particularly in relation to mobile network capacity. The Government (through the Department of Infrastructure, Transport, Regional Development, Communications and the Arts) is currently considering roaming during disasters (Temporary Disaster Roaming – TDR). Subject to the outcomes of consideration of TDR, the Government will examine the extent to which roaming could be made available for other events.

Recommendation 15

The Australian Government should require mutual assistance arrangements to be established between telecommunications service providers during outages to assist in managing and resolving those outages, learning from international experience (for example, similar to the Canadian MOU).

Agreed.

The 8 November outage demonstrated the difficulty of restoring services and responding to localised events during a mass outage. Improved cooperation between telecommunications service providers may mitigate the consequences of an outage and assist network restoration efforts.

The Government will work with industry representatives, through the steering group established in response to Recommendation 2 to establish appropriate mechanisms for mutual assistance between carriers. This will involve consultation with industry to develop and agree a memorandum of understanding between carriers, establishing mutual assistance arrangements, which can be drawn upon during outages and any circumstance that may arise which could be ameliorated through cooperation amongst industry participants.

Recommendation 16

Network operators should be required to establish the ability to remotely access and activate network management tools, and have sufficient network redundancy to deploy them, in the event of a core network outage.

Agreed.

The Government acknowledges that Optus has indicated it is implementing this measure in response to the 8 November outage. It is appropriate for these arrangements to be made an explicit requirement to prevent similar circumstances occurring in any potential future outages.

The Government supports the development of an industry code, providing industry with an opportunity to identify how this recommendation could best be implemented. The Government's expectation is that this code should be in place within twelve months of commencement of drafting.

Recommendation 17

Australian governments should review arrangements for maintaining their operations during outages including telecommunications redundancy for critical government services. Consideration should also be given to maintaining this information in central repository.

Agreed.

The Government acknowledges existing arrangements have room for improvement and there should be greater awareness within government of the potential risks to these services without appropriate redundancy provisions.

The Department will consult across Government on the steps to be taken to meet this recommendation. This process should also include consultation with State and Territory Governments, particularly in regard to understanding how critical communications services are delivered within those jurisdictions.

The Government will implement this recommendation within 12 months.

Recommendation 18

The Department and the ACMA should institute a review of all legislation and regulation relating to Triple Zero, with a clear focus on the recommendations of this Review and the outcomes of the ACMA's investigation regarding the Optus outage.

Agreed.

The findings of the review and the ACMA's investigation will provide important context for reviewing the adequacy of the legislative and regulatory framework enabling Triple Zero. The review has identified areas for improvement in the immediate aftermath of the 8 November outage. Further consideration of opportunities for reform must be undertaken to reduce the risk of another major outage occurring, and to limit the impact such an outage has on the community.

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The Government will implement this review over the next 6 months with the aim of implementing all legislative and regulatory changes within 18 months of the publication of this report, subject to parliamentary timeframes.

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