Telecommunications (Emergency Call Service) Determination 2009

Australian Mobile Telecommunications Association and Communications Alliance submission

November 2018

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INTRODUCTION

Communications Alliance (CA) and the Australian Mobile Telecommunications Association (AMTA) welcome the opportunity to provide this submission in response to the Australian Communications and Media Authority's (ACMA) review into the efficiency and effectiveness of the *Telecommunications (Emergency Call Service) Determination 2009* (the Determination).

The Associations believe the review of the Determination provides a welcome opportunity to test whether the Determination remains fit for purpose and delivers the desired outcomes required for the effective management of emergency communications.

We observe that this review is not a review of the emergency services policy framework and consider that such a review is warranted and long overdue. This includes ensuring clarity of policy, regulatory settings, jurisdictional and contractual arrangements for both existing and next generation emergency communications.

We note that significant technological change has been introduced since the Determination took effect in 2009. There are now significantly more product and service options in the market for end users of telecommunications services to communicate with the Emergency call Person via either Triple Zero or 106.

Consumer expectations have also evolved, and it is important that these expectations are understood, managed and met wherever possible. End users of telecommunications services expect 'always on' and are accustomed to using a range of networks, technologies and devices. While Triple Zero was designed for a fixed line world, end users now expect to be able to contact emergency services via the mostly data-based services and applications they use in daily life – text, VoIP and social media.

These technical capabilities are continually evolving, and where possible, the Determination needs to be flexible enough to cater for both changes since 2009 and future changes.

Today, communications networks, including mobile networks, are predominantly data-based. Data services and text communications are now widely available across fixed and mobile networks and are now the mainstream means of communication. Billions of people across the globe now communicate using social media every day.

Convergence between fixed and mobile communications networks is a firmly established reality and internet access, text and video communications are available across both fixed and mobile networks.

Mobile communications are an enabling technology. For example, a recent report by Deloitte Access Economics found that mobile technology significantly increases the level of workforce participation in Australia's economy for several sectors of the population, including those living with disability, seniors, and parents/carers. That is, the report found that those surveyed would work on average 0.6 hours less per week if they did not have access to mobile devices. This not only has an impact on those individuals who are able to increase their workforce participation but has an impact on the economy to the effect that the economy is $8.9 billion larger as a result of mobile-enabled labour force participation.[1]

Next Generation Emergency Communications (as adopted in North America, Europe and parts of South-East Asia) envisage multimedia communications to emergency services across

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[1] Deloitte Access Economics – Mobile Nation: Driving workforce participation and productivity p ii, 2016

fixed and mobile networks. These next generation services are planning for or have implemented access to emergency services via text, internet and social media which enables both wider access and more options to accommodate a broad range of emergency situations. The Associations believe that opportunities for increasing accessibility to Triple Zero (000) emergency services, for e.g. by text or social media should be further explored and considered as a priority as the implementation of next generation emergency communications in Australia is progressed.

Given the constantly evolving nature of communications we strongly suggest that the Determination may not be the most effective mechanism to manage regulation relating to Emergency Communications and that it would be preferable to move the content to the Industry Code C536:2011 Emergency Call Service Requirements (the Code).That is, a Code can be more easily updated to reflect technological or other changes in the industry.

The ACMA could also, as an alternate approach, consider whether the obligations in the Code may be better placed into the Determination to avoid the need for carriers and CSPs to consult a multiplicity of regulatory instruments to understand how emergency communications should operate.

From a regulatory compliance perspective, the Associations would prefer that obligations relating to Emergency Communications regulation be contained in a single instrument that might be supported by an Industry Guideline, or an Industry Guidance Note.

We also suggest the ACMA further assess the Determination against:

- a best practice approach to regulation, as per Regulatory Impact Assessment guidance managed by the Office of Best Practice Regulation. In summary, best practice regulation seeks to resolve identified problems by setting a policy objective, considering all the relevant non-regulatory and regulatory options (including assessing costs and benefits) to ensure that an effective solution is developed; and

- Section 4 of the *Telecommunications Act 1997* which states at 4 (a) and (b) that telecommunications be regulated in a manner that promotes the greatest practicable use of industry self-regulation and does not impose undue financial and administrative burdens on participants in the Australian telecommunications industry.

The Associations

Communications Alliance (CA) is the primary telecommunications industry body in Australia. Its membership is drawn from a wide cross-section of the communications industry, including carriers, carriage and internet service providers, content providers, equipment vendors, IT companies, consultants and business groups.

Its vision is to provide a unified voice for the telecommunications industry and to lead it into the next generation of converging networks, technologies and services. The prime mission of Communications Alliance is to promote the growth of the Australian communications industry and the protection of consumer interests by fostering the highest standards of business ethics and behaviour through industry self-governance. For more details about Communications Alliance, see http://www.commsalliance.com.au.

The Australian Mobile Telecommunications Association (AMTA) is the peak industry body representing Australia's mobile telecommunications industry. Its mission is to promote an environmentally, socially and economically responsible, successful and sustainable mobile telecommunications industry in Australia, with members including the mobile Carriage Service Providers (CSPs), handset manufacturers, network equipment suppliers, retail outlets and other suppliers to the industry. For more details about AMTA, see http://www.amta.org.au

Improving the effectiveness of the Determination.

The Determination is a construct of the technology in place at the point in time as drafted including the challenges or specific needs associated with those technologies.

The Determination makes reference to technologies that have either changed (e.g. all communications now use internet protocols), become more mainstream in their use (e.g. public mobile telecommunications services (PMTS)), or never eventuated (e.g. location independent communications).

The review process provides an opportunity for the ACMA to engage, consult and involve the whole of industry. This should include the ACMA both inviting and encouraging participation in developing emergency call service obligations, so they are practical, fit for purpose and educate the broader industry on their obligations. It should also include ensuring operational processes for suppliers are clear, aligned and consistent.

When considering how to make the Determination and the obligations more practical, the Associations suggest the ACMA look at introducing a set of guiding principles into the Determination. Suppliers can then easily determine what it is they must deliver. Below are suggested guiding principles which industry have agreed are the most appropriate to address emergency call services and are also items which could be removed from the current Industry Code

Guiding Principles

Monitor Emergency Call Traffic
Carriers should monitor their networks and ensure that any disruptions do not result in a delay to the interconnection point that leads to the Emergency Call Person (ECP). If delays are detected, they must be dealt with promptly.

Welfare Checks
Where network disruptions have affected the ability of customers to contact Triple Zero, the ECP, carriers and CSPs must have arrangements in place to perform welfare checks.

1. **Communications Failure on Supplier Access Network Side**

The Industry Triple Zero Disruption Protocol (ITZDP) will define operational arrangements for the communication of network failures with all relevant parties and to make checks on the welfare of those emergency callers that have attempted to contact the ECP. Where the supplier chooses not to do the welfare checks themselves, the supplier is required to have arrangements in place with a 3rd Party (e.g. the ECP) to perform welfare checks on their behalf and supply that 3rd Party with the details of the relevant service number that should be contacted.

2. **Communications Failure on ECP Delivery Network to the ESO**

Once an emergency call is answered by the ECP Network and is relayed to an Emergency Services Organisations (ESO) call-taker, Industry is not able to determine whether the call has been answered by an ECP Agent or an ESO call-taker or if they have received an appropriate response. In situations where there is a high call event (resulting from natural disasters, etc.) that causes a large number of calls to the ECS to receive a delayed response from ESO call-takers, the caller may hang up and possibly call again further increasing the number of calls into the ECS. Industry would be unable to identify these types of events in isolation and would therefore be unaware of the need to perform welfare checks.

The ITZDP will define operational arrangements for welfare calls where there is communications failure on the ECP delivery network to the ESO.

Cooperation between Carriers & CSPs
Carriers and CSPs must cooperate to resolve complaints or investigations relating to a matter or matters raised by an Emergency Call. Consideration should also be given to the development of communication channels for when these types of matters arise.

Mechanisms need to be put in place to allow operational resources to deal with matters urgently, while also having separate mechanisms in place for advising relevant stakeholders (state, Commonwealth etc). While not required as an obligation, this would assist all involved in timely co-operation and resolution of matters.

Carrier's Protection of the ECS
Carriers must employ network management strategies to ensure the protection of calls to emergency services where mass calling of non-genuine calls to the ECS is identified. Every effort should also be made to identify potential DoS and DDoS traffic types.
Carriers must also have arrangements in place to protect the ECS by attempting to stop traffic that is not a genuine Emergency Call.

Prioritisation of Emergency Calls across Networks
Carriers & CSPs should ensure that the networks used for the carriage of Emergency Calls have:
a) diversity;
b) redundancy;
c) transmission quality, including echo control; and
d) the use of priority routing via dedicated pathways across networks, where technically practicable.

Promote Awareness of the ECS
Customers, but also members of the public who use telephony services, should be informed in a manner which promotes awareness of the operation of the ECS, the appropriate use of it and the personal information that will be provided to the ESO call-taker and responder. As mentioned earlier, this type of information should be developed in a consistent manner and be generally aligned across the involved parties.

Communication between Carriers during events negatively impacting access to the ECS
This principle could also benefit from development of a communication plan between involved parties, as referenced in the ITZDP and may apply in, but not be limited to, the following situations:

- a carrier is unable to deliver emergency calls to the ECP due to a network service outage in its network and other carriers rely upon that carrier network to deliver emergency calls to the ECP;

- a carrier is unable to deliver emergency calls to the ECP due to a network fault in its own or another network the carrier must advise CSP's that use them as their communications provider of the nature of the service outage;

- a carrier is unable to deliver emergency calls due to a service disruption, and must maintain effective communications with all other affected parties (such as Police, Fire, Ambulance, ECPs, other carriers, other CSPs); or

- the nature of the service outage allows, the carrier has confirmed that an attempt was made to call an ESN that did not connect to an ECP. That carrier must have arrangements in place with either another carrier, relevant CSP's or the ECP to carry

out welfare calls back to the customer known to have been affected by having attempted to make emergency calls which were unsuccessful.

CSP Communications with its Customers About Possible Access Problems to the ECS

A CSP upon being advised by a carrier of a fault that impacts its customers' ability to make emergency calls, must make reasonable efforts to advise its customers of the fault and the expected duration and any other alternative arrangements that are available to make an emergency call.

CSP's must maintain effective communications, where practicable, with their customers to advise them of the ongoing service outage and any alternative arrangements that are available to make an emergency call for the duration of the service outage.

Notification to the relevant Government agencies of Possible Loss of Access to the ECS Due to Network Disruption

Where a Carrier becomes aware of a significant network disruption that affects its ability to provide effective delivery of Emergency Calls to affected Customers then the Carrier must provide information on the scope and effect of the significant network failure to the ACMA via phone or email on or before the next Business Day.

In addressing the questions posed by the ACMA in the consultation paper, an attempt has been made to refer to these guiding principles where applicable.

The ITZDP will define operational arrangements for who and how such notifications will be made.

Issues for examination

The ECS in an NBN environment

1.1 **To what extent can the ECS Determination be technology neutral? How can this be best achieved?**

1.2 **Are there any obligations that cannot be technology neutral and, if so, how should they be covered in the ECS Determination?**

1.3 **How should the ECS Determination deal with new technologies? Should it include an implementation time frame for new technologies?**

1.4 **Should there be any specific requirements placed on wholesale layer 2 bitstream providers in the ECS Determination?**

Technology Neutral.

The Determination is rife with specific obligations relating to different technologies, which fail to take into account contemporary technical capabilities and those that are likely to arise in the future. It also fails to consider that a standard telephone service captures some of the forms of technology which have separate obligations, such as PMTS.

As a principle, it is important that as far as practicable, the Determination is technology neutral in terms of the obligations it imposes, keeping in mind that implementation will always have to have regard to technical practicalities and limitations.

As already noted, convergence between fixed and mobile communications networks is a firmly established reality and internet access, text and video communications are available across both fixed and mobile networks. The Determination needs to be considered in this new environment context.

The below Sections from the Determination have been considered in respect to making them technology neutral with suggestions on how this could be achieved.

- *Section 14 – Giving end-user access to emergency call service operated by emergency call person for 000 and 112 — location independent communications service that is not a standard telephone service*

It is suggested this Section can be removed. The services discussed have never been implemented and have been removed from the Numbering scheme. It is also no longer necessary to address Voice Over Internet Protocol (VOIP) services separately.

- *Section 13 2 (a) - Requirement for carriage service provider – exempt satellite service*

CA supports the retention of the exemption at Section 13 2(a) 'Requirement for carriage service provider – exempt satellite service' on the basis that it is not a general exemption for all satellite voice calls. That is, the exemption addresses a subset of voice calls via satellite where part of the call routing is via an overseas earth station, with the call being returned to the ECP via international networks. The overseas earth station or the international networks don't recognise calls to the ECP.

- *Section 15 - Requirement for carriage service provider if end-user uses emergency service number 112 — public mobile telecommunications service*

PMTS are also a Standard Telephone Services (STS). It is suggested this Section be removed.

- *Section 16 - Requirement for carriage service provider if end-user uses emergency service number 112 — satellite service*

It is suggested Section 16 can be removed. Suppliers should be seeking an exemption if they cannot meet ECS Determination obligations.

- *Section 19 – Requirements for carriage service provider — controlled networks and controlled facilities*

As per Section 14A, it is suggested that Section 19 (c) can be removed.

- *Section 35 - Minimisation requirement — emergency call person for 000 and 112*

35 (1) (a). Suggest removing (a) as the obligation should apply to all access technologies.

35 would then read: *The emergency call person for 000 and 112 must take the steps mentioned in subsection (2) to minimise the number of calls received by the emergency call person on the emergency service numbers 000 and 112 that are not emergency calls.*

- *Section 36 - Minimisation requirement — carriers*

A number of changes to Section 36 are proposed, primarily relating to the reference to PMTS as the obligation should apply to all access technologies.

Suggest completely removing section 36 (1).

36 (2) (a) to be removed. This would now become 36 (1) and read: *The carrier must take the steps mentioned in subsection (3) to minimise the number of calls received by the emergency call person for 000 and 112 on the emergency service numbers 000 and 112 that are not emergency calls.*

Suggest removing 36 (3) and (4) as they are now redundant. These should be covered at the start of the instrument as they are standard operating process and apply to the entire instrument.

- *Section 49 - Information identifying calling numbers*

Section 49 (2) (a) (ii) and (3) (c) are redundant as location independent communication services do not exist and have been removed from the Numbering Plan.

It is suggested that 49 (2) (a) can be completely removed as well as 49 (3).

In relation to 49 (4), it is our understanding that with the introduction of the **nbn** access network, SMSA Codes for Fixed Network Services will no longer be available to indicate the state of origin of the emergency call. However, the Alternate Address Flag for services migrated to the **nbn** will be set to False indicating to the ECP taking the call that the service address listed should be relied upon in the absence of any other information provided by the caller.

The Guideline references mentioned in Section 49 also require updating.

- *Section 52A - Most precise mobile location information available*

This section mentions mobile location information to be sent to an ESO if they ask for it. Industry note that the wording for 52A (2) could be strengthened and changed to an

obligation of 'must'. As is the case today, the most precise mobile location is already made available to ESO's, rather than them having to request it.

Access to the ECS

2.1   In what circumstances, if any, should the ECS Determination allow for exemptions from the requirement to provide access or carry calls to the ECS?

2.2   Are there any other circumstances in which a CSP/carrier or the ECP should be exempt from complying with a particular obligation in the ECS Determination?

Industry note that if a technological solution is able to provide the capability to carry calls to the ECS, there should be general obligations in place to provide access to the ECS. There may be circumstances though, as in the instance with any future technology, where it may take time for these obligations to be met and therefore some form of limited time exemption may need to be adopted.

An appropriate exemption process should be agreed (with stakeholder consultation). Such an exemption process should be made public and be transparent. An exemption process should be put in place to address scenarios where a future technology could not meet the requirements as set out in the Determination.

Other, limited circumstances for an exemption may be in the case where a 'niche' type of service, e.g. a mining company may have their own carrier licence and provide their own telecommunications infrastructure and do not need to be able to contact emergency services via Triple Zero, as they may provide their own on-site emergency services.

Industry acknowledge the fact though that any device able to connect to this 'niche' type of service need to be correctly labelled and appropriately advised at point of sale, that they are unable to connect to the ECS. It is understood that this is current practice, as with some Over the Top (OTT) services, which advise at the time of log-in that the service can not be used to contact the ECS.

Section 19 controlled networks and Section 22 relevant termination point

Noting that in its consultation paper, the ACMA specifically mentions an option of making both section 19 and 22 a stricter regime, it is the Industry view that it would be unreasonable to expect 100% capability and therefore we do not support change to a stricter regime, as technology is never 100% reliable. We believe that there should be arrangements for remediation of any network disruption as soon as possible, which may include fail over to another carrier network, where that is an available option. However, a disruption that is outside the ECP network provider's control is an example of a matter that should be exempt.

We would suggest that section 19 is currently sufficient to impose an obligation while providing for matters that are outside control of the provider. We do suggest the removal of the exemption under (c) for Satellite services to make the obligation more technology neutral. Section 22 should provide similar exemptions as to those set out in section 19 for matters that are outside of the control of the CSP as this will align this obligation with other key obligations in the Determination which have force majeure exemptions etc., on the basis of what is fair, reasonable and technically possible in relation to obligations imposed on Carriers and CSPs.

Interconnection arrangements

3.1 Should the ECS Determination provide for CSPs/carriers to terminate emergency calls directly into the ESAP network? Should there be a requirement that CSPs/carriers must arrange for emergency calls to default to Telstra's network if there is a failure in the CSP's/carrier's network, which prevents direct connection to the ESAP network?

3.2 Should the ECS Determination specify any conditions that must be met by CSPs/carriers before such access being provided? For example, active monitoring of traffic by CSPs/carriers to detect and deal with possible DoS attacks.

3.3 If the connection from the ECS to ESOs is provided by another CSP/carrier, should there be a requirement that the CSP/carrier must arrange for emergency calls to default to Telstra's network if there is a failure in the CSP's/carrier's network that prevents direct connection from the ESAP network to ESOs?

While some CA members support CSPs/Carriers to terminate emergency calls directly to the ESAP and, that this approach would remove reliance on a single network operator and would introduce greater future resilience through alternate network path(s), the Industry strongly believes that any direct interconnect to the ESAP not be mandated, but rather provide an optional arrangement for inter-connection to the ESAP.

The regulation and network design should allow for automatic failover to an alternate network if that CSPs/Carrier network fails and this failover should not be regulated as it is not up to Telstra or the ECP to direct other carriers and CSPs on how to comply with their obligations to convey emergency calls to the ESAP. Carriers and CSPs are required under the current Determination to ensure that their networks that are used for the carriage of emergency calls to the ECS have:

a)   diversity;

b)   redundancy;

c)   transmission quality, including echo control; and

d)   the use of priority routing via dedicated pathways across networks.

This same obligation should also apply to **nbn**. It is the Associations understanding that **nbn** currently does not enable priority routing for emergency calls. **nbn** should be able to apply for an exemption until such time priority routing is enabled over **nbn** services

Careful consideration and investigation would be required prior to any requirement being made in relation to the termination of calls directly into the ESAP. Including the complexity and cost to both Carriers and the ECP of having multiple points of termination to the ESAP. A full analysis of network architectures, technical impacts and costs involved would need to be undertaken. It is recommended that a working group be established to review this operational capability and provide recommendations ion such a potential model. If this proposal was to be further pursued, Communications Alliance would be willing to host such a review.

Regardless of the interconnection model as discussed earlier in the proposed guiding principles, CSPs and Carriers must have in place arrangements to monitor and protect call traffic going to the ECS. CA has had in place G644:2011 Emergency Call Service Requirements Industry Guideline that deals with protecting Triple Zero from a denial of service attack. This Industry Guideline proved useful during one of the recent events that disrupted calls to Triple Zero. Industry has reviewed the outcomes of that event and made changes to refine the Industry Guideline. As part of the industry update to G644:2018 Emergency Call Service Protections Requirements we identified a number of potential changes required to

impose an obligation on carriage service providers and carriers to provide additional protections to the ECP.

The interconnect from a CSP/Carrier to the ESAP is not related to the interconnect arrangements between the ECP and ESO's, this is a commercial arrangement for the ECP and ESO's. However, there should be an option for Carriers other than Telstra to supply direct, or backup links between the ECP and ESO's.

Specifically, we do not believe that regulation should define any particular Carrier interconnect arrangements at any of the service delivery points, but should instead promote competition and alternate arrangement capabilities and where there is a direct interconnect the arrangement should enable for diverse network paths either within a single carrier network, or via alternate Carrier paths to ensure termination at the required delivery point, whether that be the ESAP, or an ESO.

The automatic failover to the Telstra network when another carrier or CSPs network fails should not be regulated as it is not up to regulation, Telstra or the ECP to direct other Carriers and CSPs on how to comply with their obligations to convey emergency calls to the ESAP.

Carriers and CSPs should not be required to automatically default to the Telstra network, or any other Carrier when that Carrier has a network disruption. But rather the interconnect regulatory arrangements should support and encourage a network design that allows for alternate Carrier paths to ensure a sufficient level of redundancy and resilience.

Non-genuine Calls

4.1   **What requirements, if any, should be included in the ECS Determination to reduce non-genuine calls to the ECS? Should these requirements apply to all call types?**

4.2   **Should the ECS Determination place obligations on carriers and CSPs to monitor their networks/facilities to identify high call volumes to the ECS or DoS attacks? What action should CSPs and carriers be required to take in response to such calls?**

4.3   **Should the ECS Determination require that access to the ECS be blocked for nuisance callers once a threshold has been reached?**

4.4   **Should the ECS Determination require calls to the ECS from SIMless mobile handsets or from a non-active PMTS service to be blocked?**

4.5   **How should the ECS Determination deal with calls to the ECS from VoIP services located overseas?**

We would again refer to our proposed inclusion of guiding principles, with non-genuine calls being call traffic which carriers and CSPs should have processes in place to monitor and attempt to identify. In relation to calls going to the ECS, carrier monitoring should be seeking to identify unusual traffic or higher than average traffic to the ECS, specifically for the time of year.

In relation to calls originating from overseas, it is incorrect to assume that all traffic coming from overseas is invalid. The act of filtering an incoming CLI from off shore may inhibit a genuine outgoing call from the real CLI. If the calling party utilises an IP service provider that engages the service of an off-shore call aggregator, when the call from the filtered CLI transits that service provider actively barring the number presented, it will block the call thereby inadvertently invoking a Denial of Service (DOS) event for the real customer. Blocking of the suspect source should ideally occur as close as practicable to that source to minimise the impact on the genuine customer e.g. blocking at the entry points of calls originating outside of Australia.

Currently, distinguishing between various call cases in order to identify an IMSI-less call remains a problem for some mobile networks. This means that the ECP is unable to identify the IMSI for a call 'camped on' another network. Therefore, at this point in time, blocking all apparently IMSI-less calls could capture calls made by callers with handsets that have 'camped on' another network as well as international roamers when they are out of their home network coverage. However, this problem should be solved when all mobile carriers implement SIP and at that point, mobile carriers would support consideration of the option of blocking IMSI-Less calls.

Specific sections of the Determination which have been identified as requiring updates for non-genuine calls are below.

Section 20 – Certain calls with additional digits, needs greater clarity to ensure that misdialled international calls are not treated as an emergency call. The language should be explicit that Message delivery solutions need to be flexible and again, less prescriptive in how messages are delivered (e.g. by SMS, email, pop-up notifications or other means). This would provide greater choice for customers as well as flexibility and efficiency for service providers, such as using service provider's apps that enable an opportunity for more detailed information and a greater level of usable detail to be supplied to the customer.

Section 20 (1) (a) currently states: 'public mobile telecommunications service or fixed local service' As noted earlier, obligations should apply across all access technologies.

Section 20 (1) (b) is suggested to be removed.

Section 20 (2) should be modified such that (a) and (b) explicitly state that such calls must not be treated as an emergency call.

It is suggested 20 2(a) be modified to read: must not treat the call as an emergency call.

It is suggested 20 2 (b) be modified to read: must not connect the call to an emergency call person.

Caller location information

5.1   Are the current requirements in sections 14, 49, 52 and 52A of the ECS Determination adequate? If not, what changes should be made?

See earlier comments under **Technology Neutral** page 6**.**

5.2   What requirements, if any, should be included in the ECS Determination for AML when used in relation to ECS?

5.3   Are there any available means for VoIP service providers or SIP PSTN gateway providers to provide location information to the ECS and ESOs for callers? If so, what requirements should be included in the ECS Determination?

Industry are currently engaged in developing future solutions which aim to provide a more granular level of location information. CA working groups have been investigating requirements for Advanced Mobile Location and more precise location information delivered over SIP connections.

We note, as per the Minister for Communications press release 22 October 2018:

'The Department is in discussion with Telstra to implement a new Internet-Protocol (IP) platform to facilitate next generation Triple Zero capabilities, as well as Advanced Mobile Location (AML) to provide more accurate location information by automatically sending coordinates to Triple Zero.'

AML was previously identified in an EOI process as the preferred solution for providing location-based data. Under optimal conditions, AML can deliver accuracy of down to five metres and during an emergency call automatically provides the caller's location to emergency services, with built-in privacy safeguards ensuring only emergency responders have access to location data for the purpose of the Triple Zero call.

While AML has been identified as the preferred solution by the Department of Communications and the Arts, the expectation is that any future Triple Zero technology platform must be sufficiently flexible so as to be able to implement additional or alternative technologies if and when they become available.

There may be certain information from both of these technology types which could be classed as mandatory and to be passed on to the ECS. As has already been posed in our submission, the obligations (or principles) themselves should be addressed in the Determination rather than highlighting specific technologies. A reference to G557 *Location Information for Emergency Calls* may be useful to address the information which is to be delivered.

Communication Obligations

6.1   What obligations should the ECS Determination place on the ECPs, carriers and CSPs for communication with relevant stakeholders in the event of a disruption which impacts access to the ECS?

It is industry's view that all providers should have an obligation to communicate with relevant stakeholders. We again note our guiding principles proposal, particularly **Communication between Carriers during events negatively impacting access to the ECS.** All providers should also be aware of the framework set out in the Triple Zero Disruption Protocol which is soon to be published by Telstra as ECP.

Integrated Public Number Database obligations

7.1   Should the duplication of IPND requirements in the ECS Determination and IPND Code be addressed and, if so, how? If the obligations remain in the ECS Determination, should the requirements for mobile numbers be changed to take into account alternative sources of information?

CA questions the need for a number of references to the IPND. The options are that the Determination should reference Industry Code C555 Integrated Public Number Database (IPND), or the following changes to the Determination are made:

Section 39 deals with supply of information to the IPND Manager and could be considered redundant and could be removed. In all cases where a public number is issued to a customer a carriage service provider must supply relevant customer information to the IPND Manager as required in C555 clause 4.2.1

Section 40 deals with location information from other than a PMTS and could be considered redundant and removed as this is covered by C555 clauses 4.2.1 and 4.2.23

Section 41 deals with PMTS and is a hangover from a previous time when a PMTS was less prevalent. Today the number in the IPND record is the contact number.

Section 42 deals with supplying information to the IPND Manager and could be removed as the obligation to supply data is captured in C555 clauses4.2.1 and 4.2.25. We note that the timing to supply data refers back to the Determination under section 3.3.3, however the Code could be updated to reflect the expected service level.

Section 43 deals with updating IPND location information and could be considered redundant as the obligation to supply data is captured in C555 clauses 4.2.1, 4.2.18 and 4.2.25

Section 44 could be considered redundant and could be removed as the obligation to supply data is captured in C555 clause 4.2.1, and the associated Industry Guideline G641 goes into detail about address requirements.

ECSR Code

8.1   Are there any requirements that are currently contained in the ECSR Code or any associated guidelines which should be included in the ECS Determination instead, to provide stronger regulatory protections?

We have attempted to address this with the guiding principles proposed at the beginning of our submission. These principles are the requirements identified from the C536 Emergency Call Services Requirements Code which would best fit into the Determination.

If these requirements were to be adopted by the Determination, CA believes the C536 ECSR Code could then be deregistered and a supporting industry guideline could possibly merge any remaining content with the current G644 guideline, to become one document supplementary to the Determination. This document would address any specific gaps in the understanding and application of the ECS Determination requirements avoiding the current need to review three separate documents to understand regulation relating to the emergency call service.

This approach would ensure all obligations were in a single location (the Determination) with an Industry guideline providing support material that would assist in the timeliness and ease to make any necessary changes which may be required to reflect changes in technology or processes.

Charging

9.1   Are any changes required to the charging requirements in the ECS Determination?

The Determination has quite specific obligations on charging between all parties except the charging arrangements that may apply between a carriage service provider who is obliged to deliver emergency communications to the relevant termination point required by the emergency call person.

Charging to customers could have an incentive to address a number of non-genuine calls made to the ECS. It makes sense as an objective that for calls to ESOs which are discovered to be non-genuine emergency calls, the costs of servicing the call should be recoverable from the malicious or non-genuine caller. This is a similar approach to the fire services charging for the attendance of vehicles to false alarms.

1. While charging for non-genuine calls to the ECS has been suggested as a means of reducing these types of calls, it would be difficult for a CSP to make an assessment as to the genuineness of patterns of calling to the ECP from its customers. As such, charging for overuse of the service on that basis for non-genuine calls is problematic. Industry may however support charging for calls where the determination that they were non-genuine, was made by the ECP or an ESO.
2. As network faults can impact upon both uphill and downhill lines to/from the ECP, the ESO should be responsible for choosing the Access Seeker (RSP) that will supply its downhill services at a competitive price. It would be appropriate for

ESOs to consider spreading those services across multiple Access Seekers to mitigate the risk of a loss of access due to a single network failure. To enable Access Seekers to consider the impact of a network failure or outage they should red flag these types of priority services for which the ESO should have entered into a Service Level Agreement with the Access Seeker of '1 hour to Respond and 6-8hrs to Restore'.

It does however make sense that the datalinks from the ECP to the ESOs which carry the CAD should be supplied by a single preferred carrier network and charged accordingly.

Performance benchmarks

10.1 Should the ECS Determination include daily rather than monthly performance benchmarks?

We do not see the purpose or benefit which would be gained by amending these benchmarks. Normal day to day call centre activity is already monitored to evaluate performance. Industry see no added value in including daily benchmarks.
Industry would be interested to see what benefits are achieved for ESO's prior to any changes being made.

Other industry recommendations to improve the ECS Determination

Ease of use

As a general comment, we note that for ease of use, obligations relating to a particular entity such as the ECP should be grouped together. This will make navigating the instrument easier and allow ease of reference for entities, so they can identity all obligations requiring their compliance.

Written obligations

CA would like to see the obligations in Sections 6, 7 and 6.1 relating to written arrangements for compliance removed.

Written arrangements are an onerous burden that need to be constantly updated and have little bearing on the effective outcomes to meet the obligations in the Determination.

Should Section 6.1 be removed, Section 6.2 (1) should be modified to reference other material that a carriage service provider may be required to provide to show compliance to the Determination.

Conclusion

The Associations support the review of the Determination and believe this is an important step in bringing the Determination in line with technological changes and a chance to ensure it is fit for purpose for future technologies.

We believe that to assist in achieving the technology neutrality of the Determination many of the obligations residing in the C536 Emergency Call Services Requirements Industry Code could be moved into the Determination with Industry Guidelines supporting operational aspects of the Determination.

This will allow for a reduced regulatory impact on the industry, an ability to assist CSPs with understanding their obligations in respect to Emergency Call Services and give the flexibility to make quicker and easier changes when required to meet the needs of future technologies or processes.

The Associations look forward to the opportunity to further engage with the ACMA on the development of the ECS Determination.