



**Australian Mobile
Telecommunications
Association**

AMTA Submission

Standing Committees on Environment and Communications Inquiry:

Recent trends in and preparedness for extreme weather events.

18 January 2013

Introduction

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>.

AMTA welcomes the opportunity to provide a submission to the Senate Standing Committees on Environment and Communications in relation to the inquiry into "*recent trends in and preparedness for extreme weather events*".

AMTA does not possess the requisite expertise to provide comment on climate change or extreme weather events per se but the following comments relate primarily to one of the inquiry's terms of reference:

*(c) an assessment of the preparedness of key sectors for extreme weather events, including major infrastructure (electricity, water, transport, **telecommunications**), health, construction and property, and agriculture and forestry;*

Preparedness of Mobile Telecommunications Industry for extreme weather events

A well-established partnership

AMTA members are committed to working work with Government and Emergency Service Organisations (ESOs) to enable coordination and cooperation during emergencies and natural disasters including extreme weather events and into the recovery phase. The well –established partnership between ESOs, the Emergency Call Persons for 000, 112 and 106 (ECPs) and members of the telecommunications industry is an important one and one that industry is committed to seeing continue and develop.

AMTA would like to acknowledge the extraordinary work carried out by ESOs including state-based and voluntary organisations during extreme weather events, natural disasters and other emergencies.

The Australian telecommunications industry has a long history of working co-operatively in partnership with ESOs and this partnership is most effective during times of emergency or natural disaster, including extreme weather events. The industry believes that the recent events in Australia have again demonstrated the high level of co-operation that exists with ESOs and the resilience of telecommunications networks in Australia.

As an illustration of this high level of co-operation, the Chairman of the Australian Communications and Media Authority (ACMA) observed following the Queensland floods in 2010,

“... the ACMA has received regular briefings from the major telecommunications providers during the recent run of natural disasters, outlining their preparatory actions, assistance to emergency services, customer support and infrastructure restoration. Given the severity and overlapping demands placed on the telecommunications sector by these recent natural disasters, the ACMA applauds the sector for responding quickly and appropriately. With the combination of power outages, access difficulties and damage to physical infrastructure, the telecommunications providers should be recognised for their dedicated and responsive endeavours.”¹

Preparedness of mobile telecommunications industry

Regarding preparedness for extreme weather events, AMTA submits that existing mobile telecommunications networks and associated processes for their management are well placed to deal with emergencies, natural disasters and extreme weather events.

There are good working relationships among mobile carriers, carriage service providers, the ECPs and ESOs to deal with emergencies and natural disasters including extreme weather events.

Generally, the capability of the telecommunications networks to deal with extreme weather events or natural disasters, such as bushfires and the Queensland floods of 2010, is dependent on having in place appropriate processes and the ability to deploy personnel and resources quickly and efficiently. Appropriate processes and protocols include having established points of contact for ESOs and network operators.

There are existing arrangements for formal liaison between carriers, the ECPs and ESOs through groups such as the National Emergency Communications Working Group (NECWG) and the ACMA’s Emergency Call Service Advisory Committee (ECSAC). These groups facilitate communications between ESOs and carriers that establish protocols for responses to and preparation for large scale disasters, emergencies and extreme weather events.

For example, the focus of the telecommunications industry during the Queensland floods in 2010 was to keep the telecommunications networks up and running so that ESOs and others could rely on them during the emergency. Mobile network operators focussed on the deployment of resources to address events during the floods that could or did interrupt services (such as cable washouts and power outages).

If there is an interruption to a telecommunications service then the focus of network operators, especially during an emergency, is to quickly restore and maintain networks so that they can be used by the community and by ESOs performing necessary response work.

¹ ACMA Media Release 25/2011, 11 March 2011
http://www.acma.gov.au/WEB/STANDARD/962892/pc=PC_312476

Mobile network operators build, operate and maintain complex telecommunications networks which use network management processes, including active management of network alerts and monitoring of traffic levels, to manage networks effectively during emergency situations or natural disasters. This allows network operators to respond quickly to any sudden spikes in traffic loads and maintain the network's integrity and capacity to deal with emergencies or natural disasters.

During extreme weather events or natural disasters, the mobile telecommunications industry responds quickly to restore and maintain networks by various means, depending on the particular situation.

Some examples of typical response measures are:

- Reliance on existing network management processes to actively monitor network alerts and traffic levels in order to respond quickly to unexpected loads on networks.
- Rapid deployment of personnel and equipment such as back-up generators and/or self-contained, transportable mobile base stations (also referred to as a 'Cell on Wheels') to areas affected by extreme weather events or natural disasters. Similar transportable facilities can be deployed using satellite services (a 'Satellite Cell on Wheels') and fixed services (a 'mobile exchange on wheels'). This allows the network operators to restore services as quickly as possible in affected areas and maintain the connectivity and continuity of the network. For example, Optus used its satellite capability to provide emergency services satellite phones in the Mt Sylvania region of the Lockyer Valley in 2010 to assist emergency services in their rescue and recovery efforts.
- Provision of rapid connectivity and services to support ESOs in the establishment of disaster co-ordination centres. For example, during the Queensland floods in 2010, Telstra established the telecommunications services to support the Queensland Government Disaster Coordination Centre in Mary Street Brisbane. Within 24 hours, Telstra installed 30 Telstra IP Phones and Internet connectivity to enable all agencies involved in the disaster coordination to communicate effectively.
- Telstra also quickly provided a temporary location for the National Relay Service (NRS) during the Brisbane floods which meant the NRS was able to meet its commitment to provide the 106 emergency service to the Deaf and hearing impaired community. And Optus, similarly, assisted with the temporary relocation of the Kids Helpline head office after it was affected by the Brisbane flooding. Kids Helpline staff were temporarily relocated and operated out of Optus' Woolloongabba office Queensland, ensuring that vital services were maintained.
- Mobile carriers also provide free assistance to customers during times of extreme weather events or natural disasters. For example, by deploying portable customer service vans so that customers can make calls and re-charge phones. Mobile carriers may also provide prepaid handsets with credit by working with voluntary agencies such as the Red Cross. And in some cases mobile carriers will waive customer bills and suspend collection activities in affected areas. In response to the Queensland floods, Optus staff and franchisees gave out in excess of 1,500 pre-paid Optus mobile handsets loaded with a minimum of \$600 credit for

services in the Lockyer Valley, Bundaberg, Rockhampton, Brisbane and Toowoomba, with support from the Red Cross. Similarly, VHA waived the bills of customers in disaster affected regions to the value of approximately \$1.5 million and immediately suspended any collection activities. VHA also sent 21 volunteers to assist with flood recovery activities in the affected regions.

While these are examples of how mobile carriers respond to extreme weather events or natural disasters, it should be noted that these examples are grounded in the ongoing and existing relationships and protocols the industry and ESOs have in place to allow for such quick action to be taken during times of emergency or in response to disasters. This includes having dedicated personnel at major telecommunications carriers for liaison with ESOs.

For example, during days of high fire potential, Telstra representatives from the Telstra Major Incident Management team and the Telstra Victorian StateNet Mobile Radio (SMR) team attend the Victorian Emergency Co-ordination Centre (ECC). During the Victorian Bushfires in 2009 the Telstra team liaised with the emergency management team to provide valuable real time information concerning the operation and performance of the SMR as well as Telstra's fixed and mobile networks. The SMR representative works extensively with the incident communications planners to co-ordinate incident command and fire ground communications.

Industry also notes that the resilience of mobile networks in bushfire-prone areas is partially dependent on maintaining a schedule of back burning around mobile base stations. This is an example of how regular preparedness processes are vital to ensuring the resilience of telecommunications networks during natural disasters or emergencies.

To summarise, the key issues for the telecommunications industry in ensuring a robust capability to deal with emergencies and natural disasters are the speedy and efficient deployment of personnel and resources and having appropriate business processes in place to ensure co-operation with ESOs in deploying those resources.

Emergency Alert

It is important for the public to be fully informed about how best to be prepared for extreme weather and natural disasters.

The Victorian Bushfires in 2009 were a catalyst for a nationwide re-assessment of how Australians prepare for and deal with such natural disasters and emergencies. Both the telecommunications industry, the ECPs and ESOs looked at what worked and what did not work during the bushfire emergency and revised standard operating practices and emergency plans as a consequence.

A component of this re-assessment was the development of an early warning alert system that was capable of sending alerts to mobile devices. AMTA facilitated the development of interim industry guidelines for an emergency alert system for mobile devices that was location based.

This system has now been replaced with [Emergency Alert](#) which was launched on 1 Dec 2009.

Emergency Alert enables State and Territory authorities to issue voice messages to landlines and text messages to mobile phones, linked to geographic locations in an area identified as being at risk.

Location-based mobile telephone emergency warnings capability

Warnings from emergency services will soon be able to be sent to all mobile telephones in Australia, including overseas roamers, based on the network determined location of the handset at the time of an emergency. This is an enhancement to the current Emergency Alert system, where recipients of warnings are identified using the registered service address of their mobile and landline telephones.

The location-based SMS capability became available to Telstra mobile telephone customers at the end of November, 2012. Vodafone and Optus will roll out the service to their mobile phone customers from 31 October 2013.

The Integrated Public Number Database (IPND) is a telecommunications industry-wide database of all listed and unlisted public telephone numbers. Since 2009, data held in the IPND can be used by State and Territory based ESOs to enable the delivery of Emergency Alerts. Privacy protections are in place so that personal information is not accessible to the Emergency Alert system.

The Location Based Number Store (LBNS) serves as the data source for Emergency Alert. The LBNS holds telephone number and address data drawn from the IPND and assigns it latitude and longitude value (geo-coding), using information from the Geo-coded National Address File (G-NAF®). Emergency Alert draws upon geo-coded telephone numbers in the LBNS after the Emergency Alert operator identifies the geographic area to receive an emergency warning.

Emergency Alerts are just one type of emergency warning. AMTA strongly recommends that the public should always be encouraged to seek information from more than other sources (radio, television, emergency service websites and social media) and not rely on a mobile phone as a sole source of information or means of communication. Mobile telecommunications networks are dependent on the user being a mobile network coverage area and continued service is always dependant on the absence of any localised damage to mobile base stations as well as access to a reliable power supply to re-charge a mobile phone battery.

Be mobile phone prepared

In 2012 AMTA provided feedback to the Attorney-General's department in relation to a public information fact sheet - [Be mobile phone prepared for a disaster](#) – and this fact sheet is featured on the Emergency Alert website. It provides useful information for the public about how mobile phones can and should be used during an extreme weather event or natural disaster.

The Attorney-General's Department also has a mobile application called [DisasterWatch](#) which is available for download onto mobile devices by the public. AMTA supports the use of such apps as they can provide useful and up to date information to the public and alleviate the volume of calls to emergency assistance numbers.

Triple Zero (000) Arrangements

The emergency call service allows Australians to access help from ESOs by calling Triple Zero (000 and 112) or the NRS (106) and it is also a vital part of our telecommunications networks capacity and effectiveness in warning the community during natural disasters as well as being a means of providing emergency assistance to Australians on a daily basis.

The public telecommunications networks, including mobile networks, allow Australians to make free calls to Triple Zero and the NRS (on 106) in emergencies. The telecommunications industry has been proactive in ensuring access to Triple Zero and the NRS for all Australian users of telecommunications services. Experience with recent warnings and notifications sent by some State-based ESOs to the ECPs is assisting the ECPs to put in place the resources and systems in preparation to receive an increase in the number of emergency calls.

ESO requirements for telecommunication services

ESOs rely on both fixed and mobile telecommunication services when they respond to emergencies and extreme weather events. It is vital that ESOs have access to the latest technology in relation to mobile communications services.

Radiofrequency spectrum is not of itself a technology but an important national resource. AMTA supports the ACMA's extensive work in identifying spectrum for the purposes of ESOs and public safety in Australia. The ACMA has reviewed ESO use of the 400 MHz band as well as identified 50 MHz of spectrum in the 4.9 GHz band to provide very high-speed, short range on-demand capacity to areas of high activity for support a wide range of public safety uses. This band is also internationally harmonised for public protection and disaster relief (PPDR).

AMTA also supports the proposal to identify 10 MHz of spectrum from the 800 MHz band for ESOs, and agrees with Senator Conroy's statement about this allocation:

"The Government considers the allocation of spectrum from the 800 MHz band to be the best option to meet the communication needs of our public safety agencies," Senator Conroy said.²

AMTA believes that this allocation will be adequate for the implementation of a national interoperable mobile broadband capability for ESOs and supports further work by the Public Safety Mobile Broadband Steering Committee (PSMBSC) to determine how to best implement such an allocation.

Conclusion

AMTA believes that the mobile telecommunications industry is well prepared to respond to any extreme weather events. The industry's preparedness is grounded in well-established partnerships and protocols that exist between the industry and ESOs as well as a proven track record of rapid and reliable responses to previous natural disasters and other emergencies.

AMTA welcomes the opportunity to discuss any of the points raised in this submission in more detail with Committee members.

Any queries about this submission can be directed to Lisa Brown, Policy Manager, AMTA at lisa.brown@amta.org.au or on 02 6239 6555.

² Senator Conroy, media release, 29 Oct 2012, "[Spectrum for Public Safety Agencies](#)"