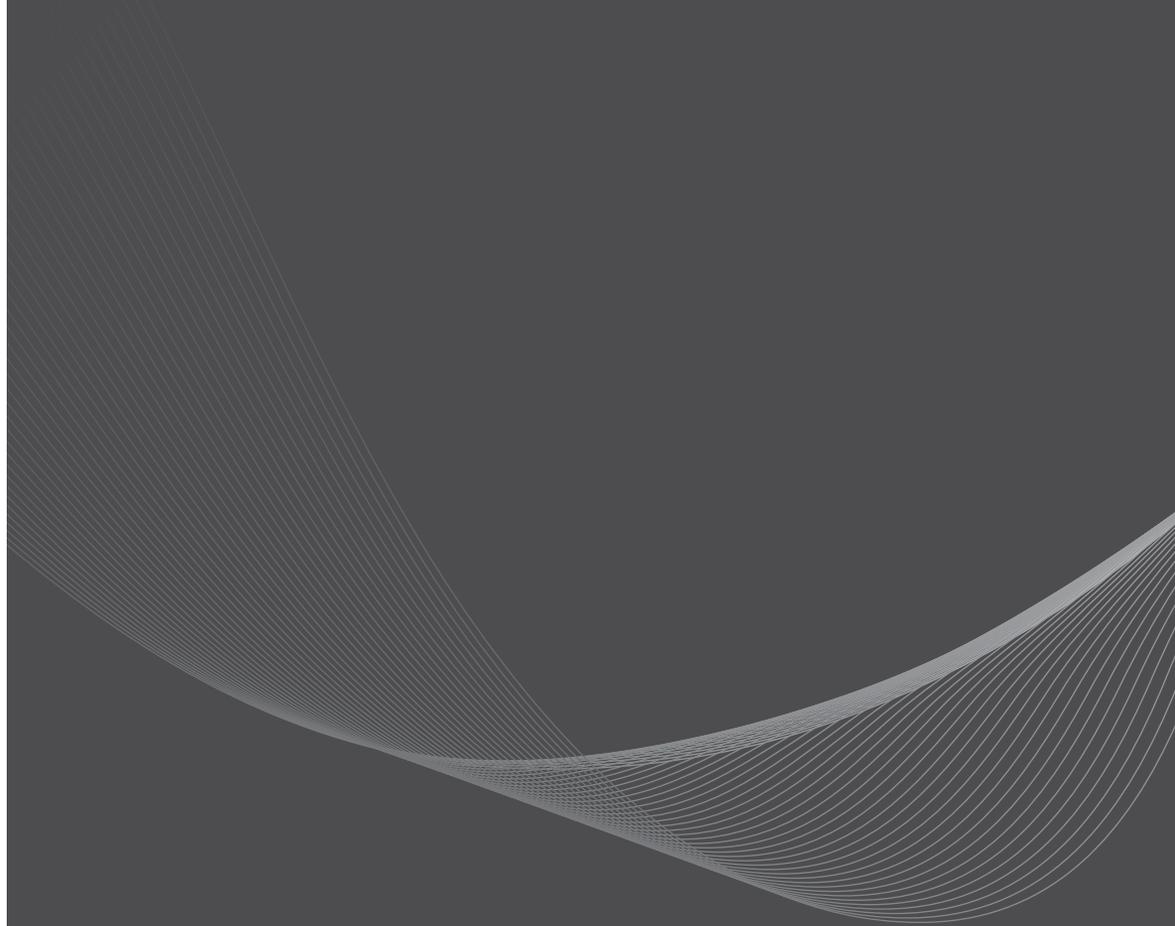

Chapter 4

National interest matters



Chapter summary

The total volume of calls to the emergency service numbers Triple Zero and 112 declined by 16 per cent during 2008–09, with a total of 10.3 million calls made during this period compared with 12.2 million made during 2007–08.

Telstra attributed the decline in emergency service call volumes to the introduction of a recorded voice announcement for the Triple Zero service in December 2008. This provided people who have accidentally dialled Triple Zero with the opportunity to hang up before being connected to an operator, which allowed more time for the service to take genuine calls.

The proportion of calls to emergency services made from mobiles remained relatively unchanged at 63 per cent during 2008–09, compared with 64 per cent of the total calls to emergency services during 2007–08.

Telstra continues to perform above the legislated requirement for emergency call answering with 96.3 per cent of all calls to Triple Zero and 112 answered within five seconds and 98.3 per cent answered within 10 seconds during 2008–09.

Disclosure of customer information to assist with investigations, emergencies and service provider business needs decreased by 18 per cent on the previous year.

The cost to industry of providing communication interception capabilities was \$16,623,370 during 2008–09, an increase of 74 per cent since 2007–08. This increase was attributed to the replacement of outdated equipment and purchases of equipment to deal with new technologies and increased bandwidth requirements.

The Integrated Public Number Database (IPND) contained approximately 53.7 million connected records at June 2009 compared with 49.1 million at June 2008.

One cable operator was granted a non-protection zone installation permit in 2008–09, to install a cable from the edge of the Northern Sydney Protection Zone through Australian waters to Guam.

During 2008–09, the total number of analog television complaints concerning domestic systems interference decreased while complaints regarding digital television reception increased.

Table 4.1: Key industry statistics

	2007–08	2008–09
Volume of calls to emergency service number Triple Zero and 112	12.2 million	10.3 million
Disclosures of personal information under Part 13 of the <i>Telecommunication Act</i> and the <i>Telecommunications (Interception and Access) Act 1979</i>	992,946	818,190
Cost to industry of enabling communications interception	\$9,526,360	\$16,623,370
Number of connected records on the IPND	49.1 million	53.7 million

Emergency call service

The telecommunications industry is required to provide, free of charge, access to the emergency call service on standard telephone services. The emergency call service is an operator-assisted service that connects callers to an emergency service organisation (ESO)—police, fire or ambulance—in life-threatening or time-critical situations.

The providers of the emergency call service are:

- > Telstra—for calls made to the primary emergency call number, Triple Zero and to the international emergency number 112 for GSM and WCDMA mobile phones.
- > Australian Communication Exchange (ACE)—for calls made to the 106 text service for people who are deaf or have a hearing or speech impairment.

This section outlines the volume and type of calls to the emergency call services, along with the performance of Telstra and ACE, as the emergency call persons, in answering emergency calls.

Emergency call service—Triple Zero and 112

There were 10,301,011 calls to the Triple Zero and 112 emergency service numbers in 2008–09, a decrease of 1,919,185 calls (16 per cent) from 2007–08.

Emergency call person (ECP) data shows that, with the exception of this reporting period, the number of calls to Triple Zero and 112 has risen consistently since 2004–05 (see Tables 4.2 and 4.3). This reporting period has seen the number of calls to Triple Zero and 112 decrease by 1.9 million from a high of 12.2 million calls in 2007–08. Telstra attributes this decline to the introduction of a recorded voice announcement to the Triple Zero service in December 2008.

Table 4.2: Call volumes to emergency call service numbers Triple Zero and 112, 2004–05 to 2008–09

	2004–05	2005–06	2006–07	2007–08	2008–09
Total number of calls offered	10,807,627	11,588,777	12,139,526	12,220,196	10,301,011

Source: *Emergency call person (Telstra)*.

Table 4.3: Call origin by service type for calls to Triple Zero and 112, 2004–05 to 2008–09

	2004–05	2005–06	2006–07	2007–08	2008–09
Facsimile	49,328	27,741	31,626	32,273	22,845
Payphone	526,521	555,624	540,120	484,266	360,572
Other fixed	3,292,050	3,620,865	3,936,864	4,061,059	3,409,552
Mobile	6,912,810	7,274,901	7,547,031	7,507,523	6,464,791
Total	10,780,709	11,479,131	12,055,641	12,085,121	10,257,760

Note: Data in this table differ slightly to that reported in Table 4.2 because they are sourced from different Telstra systems.

Source: Telstra.

Table 4.4: Emergency call service call volumes and call answering times, 2004–05 to 2008–09

	2004–05	2005–06	2006–07	2007–08	2008–09
Total number of calls	10,807,627	11,588,777	12,139,526	12,220,196	10,301,011
Total number of calls answered	10,113,882	10,625,171	11,059,705	11,094,006	9,587,336
Percentage of calls answered	93.6	91.7	91.1	91.0	93.1
Percentage of answered calls answered in five seconds or less	97.0	96.9	97.0	96.2	96.3
Percentage of answered calls answered in ten seconds or less	99.0	98.9	98.8	98.8	98.3
Percentage of answered calls answered in greater than ten seconds	1.0	1.1	1.2	1.2	1.7
Percentage of offered calls transferred to an ESO	38.4	39.4	42.3	44.3	52.0
Percentage of offered calls from mobile phones	64.0	62.8	62.2	62.1	62.8

Source: Emergency call person (Telstra).

Telstra's performance in answering emergency calls

The ACMA's Telecommunications (Emergency Call Service) Determination 2002 sets out performance criteria for the emergency call person's handling of calls to Triple Zero and 112 as follows:

- > 85 per cent of emergency calls to Triple Zero answered within five seconds
- > 95 per cent of emergency calls to 112 answered within 10 seconds.

Telstra continues to perform above the legislated requirement for emergency call answering, with 96.3 per cent of all calls to Triple Zero and 112 answered within five seconds and 98.3 per cent answered within 10 seconds in 2008–09 (see Table 4.4).

Factors influencing the effectiveness of the emergency call service

A significant proportion of calls made to the emergency call service do not relate to genuine emergencies. Non-genuine calls arise in many ways, such as from misdials, automatically generated calls from incorrectly programmed fax machines or modems, callers reporting matters that are not emergencies, and hoax and malicious calls.

Non-genuine calls to the emergency call service from mobile handsets without a subscriber identity module (SIM) have been a major concern for many years. For technical reasons and based on advice from industry, automatically blocking such calls which present without an apparent SIM (and removing the obligation on mobile phone carriers to carry them) is not a viable option at this stage. In particular, some genuine calls which roam to other carrier networks would present similarly and cannot currently be separated from SIM-less calls.

Measures introduced to reduce the number of non-genuine calls during the reporting period include:

- > Telstra's introduction of a short recorded voice announcement (RVA) for the Triple Zero emergency call service on 19 December 2008. The RVA gives people, who have accidentally dialled Triple Zero or inappropriately called it to test a mobile phone, the opportunity to hang up before being connected to an operator, freeing-up the service to better handle genuine calls. Since the introduction of this announcement, the number of calls received by Triple Zero has reduced by approximately 20 per cent.
- > Implementation by industry of an escalated warning/strike process which may ultimately lead to mobile handsets, from which repeated non-genuine calls are made, being blocked from making all calls except calls to Triple Zero. The process commenced in June with the first warnings expected to be provided in the first quarter 2009–10.

The ACMA is also proposing to place new regulatory requirements on mobile carriers and the ECP for Triple Zero and 112 to take steps to minimise the number of non-genuine calls to the emergency call service from mobile phones (see Review of the ECS Determination).

Activation of extreme call process during the Victorian bushfires

The ECP for Triple Zero has an extreme call management process which is activated in circumstances of high call volumes. On Saturday 7 February 2009 (commonly known as Black Saturday), during the Victorian bushfires the decision to activate the extreme call management process was taken by the ECP.

The extreme call management process involved isolating all Victorian call traffic from the national Triple Zero network. This resulted in the protection of access to the emergency call service nationally. All calls originating in Victoria were sent to the Melbourne call centre, while the remaining national traffic was sent to the Sydney call centre for answering and connection, thus reducing delays outside of Victoria.

Over the period of peak demand on 7 February, there was approximately three times the normal volume of calls to the Triple Zero service. The number of calls able to be answered was as low as 27 per cent of total calls due to the extended average handling times resulting from delays in answering calls by ESOs. In a nine hour period on Black Saturday, a total of 2,659 calls were connected to the Victorian Fire Brigade, 10 times the normal volume.¹

The Commonwealth is continuing to assist the 2009 Victorian Bushfires Royal Commission by providing relevant documentation and making key witnesses available. For its part, the ACMA will continue to assist the Attorney-General's Department and Emergency Management Australia on issues relating to improving the efficiency and effectiveness of the emergency call service processes.

Calls connected to emergency service organisations

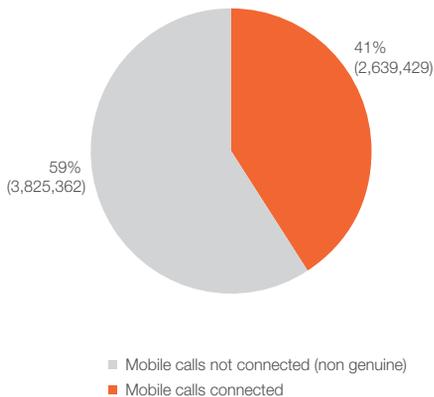
The ECP transfers emergency calls to the relevant state or territory emergency service answering point, which arranges for the dispatch of an emergency response. Calls identified by the ECP as being non-genuine or non-emergency calls are not connected to an ESO. Calls abandoned by the caller, such as with misdials, some hoax calls and test calls, are also not connected to an ESO.

Figures 4.1 and 4.2 show emergency call transfer rates for mobile and fixed-line telephones.

During 2008–09, 41 per cent of mobile calls were connected compared with 35 per cent during 2007–08. The proportion of fixed-line calls connected was 72 per cent during 2008–09 compared with 63 per cent the previous reporting period.

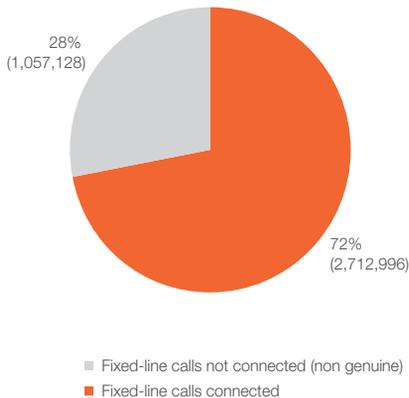
¹ Source: Victorian Fire Brigade.

Figure 4.1: Mobile call transfer connection rates, 2008–09



Source: *Emergency call person (Telstra).*

Figure 4.2: Fixed-line call transfer connection rates, 2008–09



Source: *Emergency call person (Telstra).*

Review of the Emergency Call Service Determination

The release of the discussion paper: *Calling the Emergency Call Service—Review of Arrangements* in April 2008 initiated a broad review of the ECS by the ACMA. The ECS Determination sets out specific requirements on industry participants in making, handling and transferring emergency calls.

Twenty-three submissions were received from industry and consumer advocacy groups. Following consideration of these submissions, in June 2009 the ACMA released for public comment a newly drafted ECS Determination, addressing the identified needs of the community and the demands of new technologies.

Key changes in the proposed ECS Determination include:

- > New obligations on VoIP Out Only providers to either provide access to the emergency call service or clearly and prominently inform potential customers if emergency call service access is not available.
- > New obligations for the providers of mobile services to provide specific customer data. The purpose of these provisions is to assist emergency service organisations as much as possible in responding to an emergency call from a mobile service.
- > New requirements on carriers and Telstra in its capacity as the ECP for Triple Zero.
- > 112 to take steps to minimise the number of non-genuine calls to the emergency call service from mobile phones.

The ACMA expects to finalise the new ECS Determination by the end of 2009.

Emergency call service—106 text service

The provider of the National Relay Service (NRS), ACE, is the ECP for the text emergency service accessed using the 106 number. The 106 text emergency service provides access to emergency services for people who are deaf, hearing- or speech-impaired and who use a teletypewriter (TTY) or modem to access the NRS.

The overall number of calls reaching the 106 number fell in 2008–09 to 114,345, a reduction of more than 30 per cent from the total of 164,157 in 2007–08. In part, this may be attributed to ongoing network enhancements that automatically terminate calls with excess digits.

There were a total of 333 genuine calls relayed to ESOs in 2008–09 compared with 310 in 2007–08. Type and read calls from TTYs remain the main source of genuine calls to 106.

Table 4.5: Calls to 106 text emergency service by call type, 2004–05 to 2008–09

Call type	2004–05	2005–06	2006–07	2007–08	2008–09
Type and listen (HCO)	0	3	3	4	0
Modem	1	1	4	10	1
Speak and read (VCO)	14	16	14	30	52
Type and read (TTY)	262	303	313	262	256
Voice	14	15	9	2	21
Other	0	0	0	2	3
Total	291	338	343	310	333

Source: ACE.

Integrated Public Number Database

When emergency calls are transferred to state and territory emergency service organisations, the service name and address information sourced from the Integrated Public Number Database (IPND) is carried with the call (see Role of the Integrated Public Number Database in this chapter). Access to address information improves emergency service response times, especially for calls made from fixed-line services.

Compliance with Telecommunications Act 1997

In November 2008, the ACMA commenced an investigation into whether a carriage service provider had met the obligation to provide the IPND Manager with the information it reasonably requires to provide and maintain the IPND.

The investigation centres on the customer information provided to the IPND Manager in association with a post-paid mobile service which was used to make several calls to Triple Zero in October 2008. The ACMA's investigation is continuing.

Telecommunications privacy provisions

The *Privacy Act 1988* (the Privacy Act) sets out a national scheme governing the collection, storage, use and disclosure of personal information by private sector organisations. The Privacy Act seeks to balance privacy protection against competing social interests such as facilitating the free flow of information and the right of business to operate efficiently.

The ACMA administers regulatory obligations that interact with the Privacy Act, including:

- > *Telecommunications Act 1997* (the Act)—Part 13 provides for the confidentiality of personal information and the contents of communications, including restrictions on how telecommunications carriers and CSPs may use and disclose personal information
- > *Spam Act 2003*—establishes a scheme for regulating commercial email and other electronic messages.

Under Part 6 of the Act, the ACMA has registered industry codes addressing privacy issues, such as the handling of personal information in the IPND and in e-marketing.

The Attorney-General's Department administers the *Telecommunications (Interception and Access) Act 1979* (the TIA Act), which prohibits the interception of telecommunications except as conducted in accordance with the TIA Act. The obligations placed on carriers and CSPs by the Act to provide assistance to law enforcement agencies include facilitating lawful interception.

Disclosure of customer information

Customer information provided to telecommunications carriers and CSPs is protected under Part 13 of the Act. Carriers and CSPs are prohibited from disclosing that information to other parties except in certain limited and restricted circumstances. Those circumstances generally relate to:

- > assisting in investigations by law enforcement or national security agencies, the ACMA, the Australian Competition and Consumer Commission (ACCC) or the Telecommunication Industry Ombudsman (TIO)

- > where there is an imminent threat to a person's life or health
- > satisfying the business needs of other carriers and CSPs.

The ACMA is required under clause 57(2) (f) of the *ACMA Act 2005* (the ACMA Act) to include in its annual report, information on disclosures of customer information made during the reporting year. The number and type of disclosures made during 2008–09, as reported to the ACMA under section 308 of the Telecommunications Act, are provided in Table 4.6.

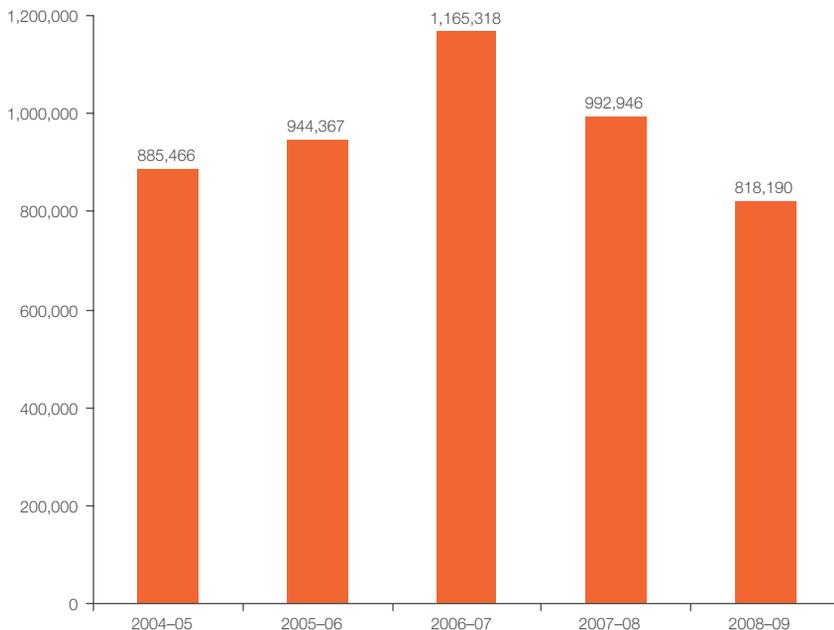
There were 332,774 disclosures made under Part 13 of the Telecommunications Act during the reporting period. In addition, 485,416 disclosures were made under the TIA Act for existing and prospective information to assist law enforcement agencies under sections 177 to 180 in the TIA Act in 2008–09.

The number of disclosures of customer information under the Telecommunications Act and TIA Act continued to fall in 2008–09, with 174,756 fewer disclosures in 2008–09 than in 2007–08.

Figure 4.3 shows the number of disclosures of customer information under the Telecommunications Act and the TIA Act between 2004–05 and 2008–09. Care should be taken in drawing conclusions from comparing these numbers as legislative amendments were made in September 2007 to provisions authorising access to telecommunications data. The amendments came into effect in November 2007 and included the repeal of section 282 of the Telecommunications Act and the commencement of new provisions in the TIA Act (sections 177, 178, 179 and 180).

In March 2009, Part 13 of the Telecommunications Act was amended to allow information contained in the Integrated Public Number Database to be disclosed for the development and implementation of telephone-based emergency warning systems by the states and territories. No disclosures relating to telephone based emergency warning systems were made during 2008–09.

Figure 4.3: Disclosure of customer information under the Telecommunications Act and the TIA Act, 2004–05 to 2008–09



Source: Carriers.

Table 4.6: Disclosures made under Part 13 of the *Telecommunications Act 1997*, 2004–05 to 2008–09

Reason for disclosure	Section of Act	Number of disclosures				
		2004–05	2005–06	2006–07	2007–08	2008–09
Authorised by or under law	280	13,336	13,634	21,532	9,932	8,662
Made as a witness under summons	281	80	69	74	46	333
For the enforcement of criminal law— <i>not certified</i>	282(1) (repealed)	400,100	396,430	375,443	16,099	–
For the enforcement of law imposing pecuniary penalty or protection of public revenue— <i>not certified</i>	282(2) (repealed)	15,654	14,240	43,981	4,849	–
For the enforcement of criminal law— <i>certified</i>	282(3) (repealed)	280,062	285,206	418,801	243,544	–
For the enforcement of law imposing pecuniary penalty or protection of public revenue— <i>certified</i>	282(4) (repealed)	1,776	1,530	1,359	17,287	–
To protect public revenue— <i>certified</i>	282(5) (repealed)	88,799	89,325	5,365	2,678	–
To assist the ACA/the ACMA	284(1)	13	13	10	939	2,074
To assist the ACCC	284(2)	191	187	1	71	29
To assist the TIO	284(3)	5,927	5,877	5,150	8,858	14,590
To avert a threat to a persons life or health	287	4,104	4,085	3,980	4,489	5,333
Communications for maritime purposes	288	–	1	–	–	3
With the knowledge or consent of the person concerned	289	75,422	133,765	289,621	305,068	301,747
In circumstances prescribed in the Telecommunications Regulations 2001	292	2	5	1	13	3
Connected with an exempt disclosure	293	–	–	–	–	0
Total		885,466	944,367	1,165,318	613,873	332,774

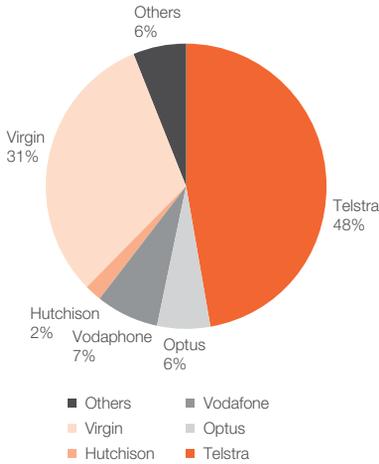
Note: Certified disclosures authorise the disclosure of documents or customer information where an enforcement agency has certified in writing that the disclosure is required. Uncertified disclosures will usually involve an informal request by an enforcement agency for the disclosure of documents or customer information. Such requests do not involve a certificate but are accompanied by supporting information.

Note: Following the Report of the Review of the Regulation of Access to Communications, legislative amendments were made in September 2007 to transfer a range of provisions, including those for access to telecommunications data, from the Telecommunications Act to the TIA Act. The amendments came into effect in November 2007 with the repeal of section 282 of the Telecommunications Act and the commencement of new provisions in the TIA Act (sections 177, 178, 179 and 180).

Source: Carriers.

Among the major CSPs, Telstra makes more disclosures than the other carriers, both because of its market share and its role as the IPND Manager (see Figure 4.4).

Figure 4.4: Disclosures of customer information by carrier, 2008–09



Source: Carriers.

Interception

The protection of content of communications between users of telecommunications services in Australia is one of the most crucial areas of privacy protection. Lawful interception may only be provided to law enforcement and national security agencies in accordance with a warrant under the TIA Act. Interception for other purposes is prohibited, with criminal penalties for breaches.

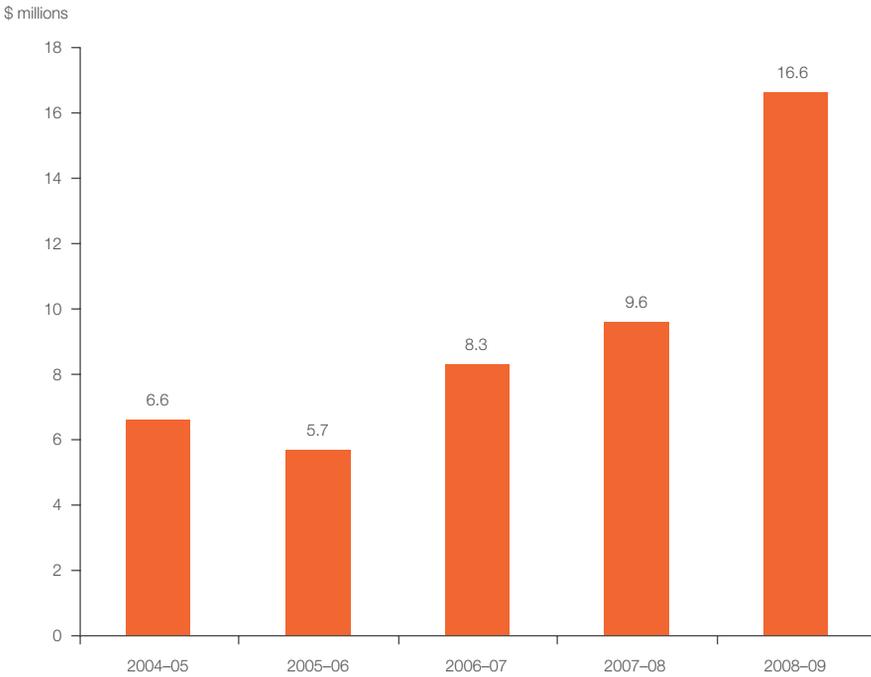
Cost of providing assistance

Chapter 5 of the TIA Act obliges carriers and carriage service providers to ensure that their networks, facilities and carriage services are capable of enabling communications to be intercepted when presented with an interception warrant. This obligation includes a requirement to develop, install and maintain the interception capability.

Section 314 of the Act sets out the terms and conditions under which carriers and carriage service providers are required to provide help to an agency. The telecommunications industry is generally permitted to recover from enforcement agencies the cost of providing assistance on the basis that it neither profits from, nor bears the costs of giving that help. However, the industry is responsible for the costs associated with providing an interception capability in the network.

In 2008–09, the cost to industry of providing interception was \$16,623,370. This represents an increase of \$7,097,010 or 74 per cent, over the 2007–08 cost. Figure 4.5 shows the changes in cost to industry from 2004–05 to 2008–09. The majority of the cost was borne by Telstra who advised significant expenditure arising from a major upgrade of out-dated equipment and the purchase of equipment required to cope with new technologies and bandwidth requirements.

Figure 4.5: Cost of providing interception capabilities (\$m), 2004–05 to 2008–09



Source: The ACMA.

Interception capability plan compliance

Under section 196 of the TIA Act, carriers and nominated CSPs must lodge an interception capability plan by 1 July each year with the Communications Access Co-ordinator in the Attorney-General's Department. The ACMA's role is to enforce this obligation. Compliance with this obligation was satisfactory in 2008–09 although several carriers submitted their plans after the due date.

During the reporting period, the Attorney-General's Department referred eight carriers and nominated CSPs to the ACMA for enforcement action. Of these, five have subsequently complied with their obligations and three have surrendered their carrier licences.

Role of the Integrated Public Number Database

The IPND is an industry-wide database of all listed and unlisted telephone numbers and associated customer information, including customer name and address information, and the name of each customer's CSP. It is managed by Telstra under its carrier licence conditions.

Telstra reported that the IPND contained 53.68 million connected records at 30 June 2009, an increase of nine per cent on the 49.12 million records at 30 June 2008. At 30 June 2009, 46 organisations were listed as data providers to the IPND on behalf of CSPs, compared with 51 at the end of the previous year.

The ACMA undertakes periodic audits of the IPND with the next audit currently underway. This will be the fourth complete audit of IPND records commissioned since 1998. The intention of the 2009 audit will be to measure the quality of address data stored in the IPND and to compare the results of previous audits to track improvement.

Identity checking requirements for pre-paid mobile phone services

During 2008–09, the ACMA worked with industry stakeholders to implement a package of measures that focused on improving the outcomes of the existing regulatory regime for the collection of information about pre-paid mobile phone users. An important element of this work was implementing compliance auditing to test how CSPs are complying with their regulatory obligations.

The ACMA completed an initial field audit under the compliance program during July and August 2008. Following consideration of the results of the audit, and information provided by industry, the ACMA formally warned four of the five largest providers of pre-paid mobile phone services for not complying with their regulatory obligations.

A second and larger field audit was undertaken in the period April to June 2009 and the results are being reviewed.

Submarine cable protection

Submarine cables carry the bulk of Australia's international voice and data traffic and contribute significantly to the Australian economy. Activity in this sector declined following a peak in 2007–08, when the capacity of a number of existing cables was upgraded and two new cables were completed.

In 2008–09, only one new cable operator was granted an installation permit. At the end of the year, there were nine submarine cables connecting Australia to seven countries: Fiji; Guam; Indonesia; New Caledonia; New Zealand; Papua New Guinea; and the United States.

The ACMA is expecting no applications for submarine cable installation permits during 2009–10, given current global financial circumstances, the long lead times required for these projects and the likelihood that there is still underutilised capacity after the increases of 2007–08 and 2008–09.

Regulation and submarine cable protection

Schedule 3A to the Act permits the ACMA to declare protection zones over nationally significant cables and to prohibit or restrict activities that pose a risk of damaging cables in these zones. Australia currently has three submarine cable protection zones; two off the Sydney coast and one off the Perth coast.

The current submarine cable protection zones for NSW and WA are shown in Figures 4.6 and 4.7

No new submarine cable protection zones were considered during 2008–09. However in December 2008, the ACMA and the Department of Defence (Defence) signed a Memorandum of Understanding (MOU) for areas where submarine cable protection zones overlap with Defence practice areas. The MOU formalises the ACMA's responsibilities to inform carriers of their obligation to consult Defence prior to accessing Defence practice areas. It clarifies changes to Defence procedures for operations in Defence practice areas where operations may impact submarine cables in the protection zones.

Figure 4.6: New South Wales submarine cable protection zones

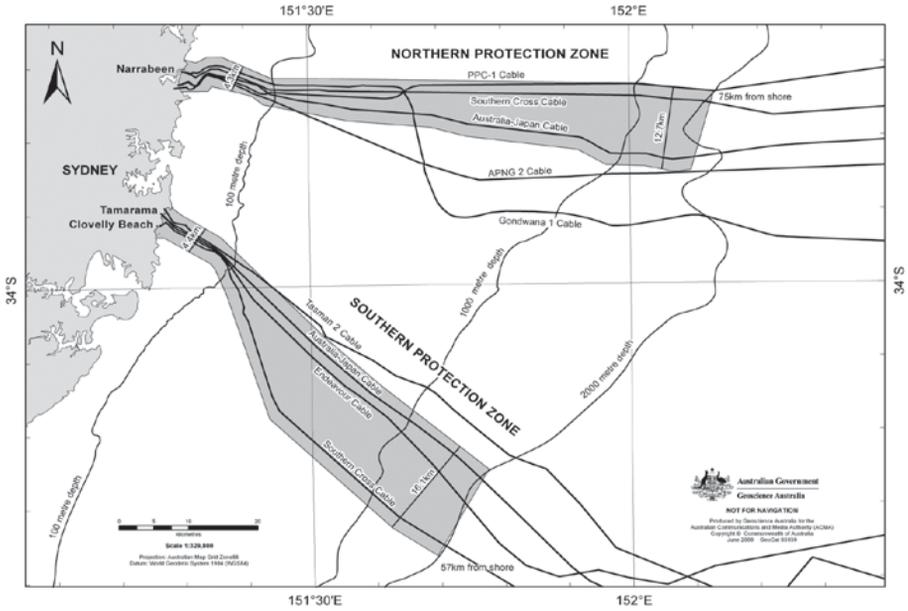
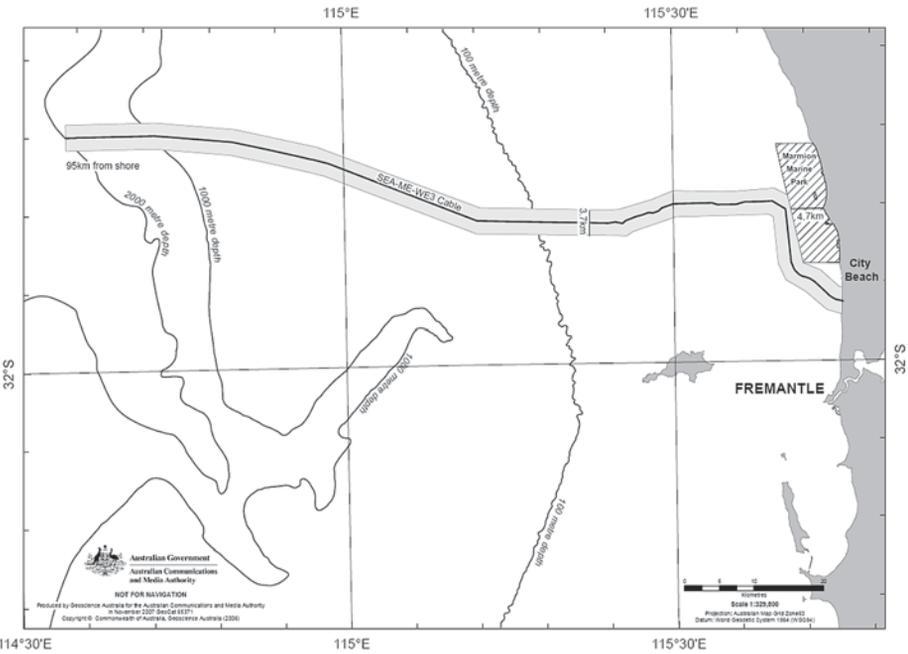


Figure 4.7: Western Australia submarine cable protection zone



New cable activities

One cable operator, PIPE International, was granted a non-protection zone installation permit in 2008–09, to install a cable (PPC-1) from the edge of the Northern Sydney Protection Zone through Australian waters to Guam. PIPE International was granted an installation permit for the portion of the route that was located inside the Northern Sydney Protection Zone in 2007–08. Installation has commenced and is expected to be completed in the first quarter of 2009–10.

Radiofrequency interference complaints

The ACMA investigates complaints about radiofrequency interference to radiocommunications equipment. Interference is divided into two categories: domestic systems interference and radiocommunications interference.

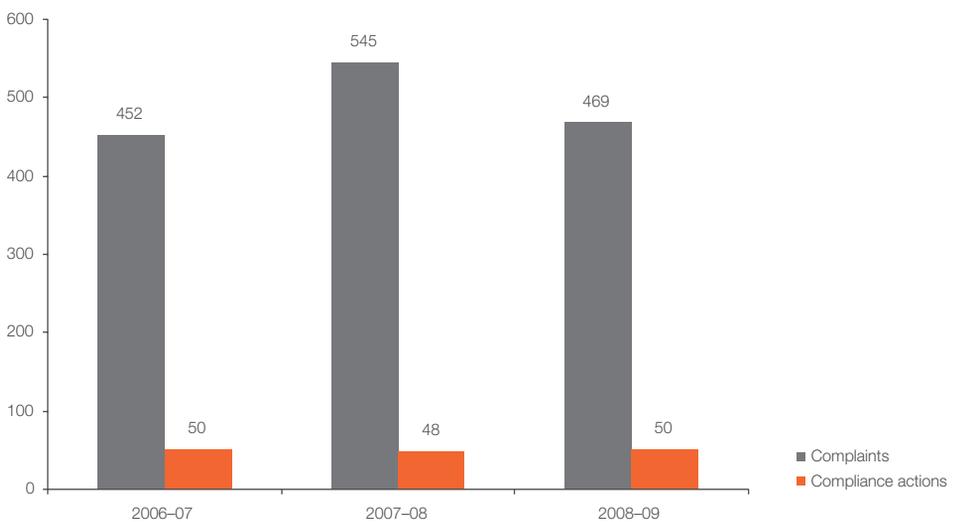
Domestic systems interference

Domestic systems interference refers to interference to the reception of radio or television broadcasting, usually in domestic premises. It also encompasses audio interference caused by nearby radio transmitters, such as those used by citizen band or amateur radio operators, or from other radio services with a transmitter located nearby.

During 2008–09, domestic systems interference continued to affect more terrestrial analog TV services than any other type of service. However, the total number of analog television complaints has decreased this year along with a corresponding increase in the number of complaints about digital television reception Figure 4.8. This trend may continue until the end of 2013 when the switchover from analog television transmission to digital only transmission will be complete.

Masthead/distribution amplifiers and household equipment (excluding computers) continue to be the major contributing sources of domestic systems interference. The number of domestic systems interference complaints decreased from the previous reporting period.

Figure 4.8: Domestic systems interference complaints and compliance actions, 2006–07, 2007–08 and 2008–09



Source: The ACMA.

Table 4.7: Domestic systems interference—Number of affected services, 2008–09

Activity	Number of households affected
Domestic systems interference	1,914
Type of affected service	Number of services affected
Terrestrial digital radio	15
Terrestrial digital TV	169
Terrestrial analog radio	176
Terrestrial analog TV	235
Total	595

Note: One ACMA compliance activity can have multiple affected services.

Table 4.8: Domestic systems interference—Sources of interference, 2008–09

Interference source	Number of ACMA field activities
Transmitter—unlicensed	1
Electrical traction overhead contact system and vehicles	1
Transmitter—spectrum licence	1
Industrial/scientific/medical equipment	1
Industrial equipment	5
Transmitter—class licence	7
Lighting devices	9
Pulsed devices	13
Transmitter—apparatus licence	13
Computer equipment	17
Site infrastructure excluding Tx/Rx equipment	24
Receiver	34
No source—the ACMA provided advice only	45
Masthead/distribution amplifier	55
Electrical infrastructure	56
Household equipment excluding computers	79
Unknown	108
Total	469

Table 4.9: Domestic systems interference complaints

Interference cause	Number of ACMA field activities
Transmitter antenna faulty	1
Transmitter faulty	1
Excessive deviation	1
Planning failures	2
Overpowered operation	2
Intermodal/desense/image	4
Incorrect emission	5
Foreign signal	6
Receiver faulty	7
Receiver antenna faulty	7
Faulty installation	15
Propagation peculiarities	22
Faulty amplifier	28
Defective equipment—non-radiating	36
Inadequate signal level	44
Powerline electrical interference	45
No source data—provided advice only	45
Defective equipment—radiating	96
Other*	102
Total	469
Interference remedy	Number of ACMA field activities
Level of protection (LOP) achieved	1
Tx unintended emissions suppressed	3
No protection afforded	5
Receiver selectivity to be improved	6
Defective equipment rectified	16
No economic cure	36
Improve site engineering	39
Other*	43
Provided advice only	45
Referred to electrical supply authority	50
QRM ceased without identification	51
Use of offending equipment discontinued	76
Service recommended	98
Total	469
* 'Other' includes cases where the interference cause is unknown (not identifiable), there are several causes of interference, or the interference has disappeared.	

Table 4.10: Identified contraventions of the Act and subsequent ACMA enforcement action for domestic systems interference complaints, 2008–09

Type of compliance enforcement action	Number of contraventions	Section of Radiocommunications Act 1992	Section description
Advice Notice (RF 169)	41	197	Causing interference
	1	113	Contravention of conditions
	42		
Warning Notice (RF 168)	7	197	Causing interference
	1	46	Unlicensed operation of radiocommunications devices
	8		
Total	50		

Radiocommunications interference

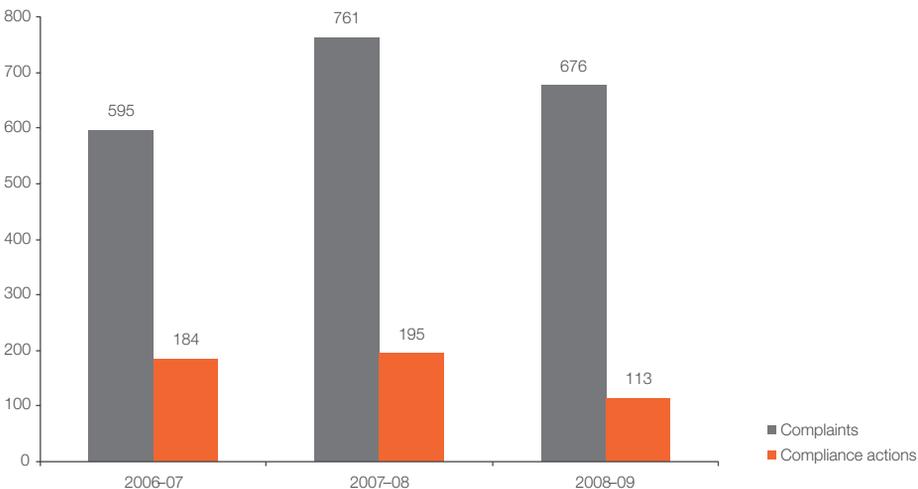
Radiocommunications interference is interference affecting a radiocommunications receiver that may be used typically in commercial, public, safety and recreational services.

During 2008–09, interference to mobile telephone services continued to be the largest affected service type. However, interference to 3G mobile services decreased, as the expansion of the 3G network slowed and matured.

The number of radiocommunications interference complaints decreased from the previous reporting period. Apparatus and class licensed transmitters continue as major sources of interference, while differential global positioning systems are emerging as a significant new source of interference.

During the reporting period, there were no prosecutions relating to radiocommunications interference.

Figure 4.9: Radiocommunications interference complaints and compliance actions, 2006–07, 2007–08 and 2008–09



Source: The ACMA.

Table 4.11: Radiocommunications interference—Types of service affected, 2008–09

Type of affected service	Number of ACMA compliance activities
Broadband wireless access service	1
CDMA mobile	4
Non-assigned	20
Amateur	40
3G mobile (not 800 MHz)	49
Emergency position indicating radio beacon	51
Public protection	52
GSM mobile	196
General	275
Total	688

Note: Each complaint has only one type of affected service.

Table 4.12: Radiocommunications interference—Sources of interference, 2008–09

Interference source	Number of ACMA compliance activities
Industrial/scientific/medical equipment	2
Computer equipment	4
Foreign vessel	5
Transmitter—spectrum licence	9
Industrial equipment	11
Electrical infrastructure	13
Foreign country	15
Household equipment excluding computers	16
Lighting devices	16
Site infrastructure excluding Tx/Rx equipment	18
Receiver	20
Transmitter unlicensed	24
Differential global positioning systems	43
Masthead/distribution amplifier	55
Transmitter—class licence	113
Transmitter—apparatus licence	125
Unknown	199
Total	688

Note: Tx stands for transmit or transmitter. Rx is short for receive or receiver.

Table 4.13: Radiocommunications interference complaints, 2008–09

Interference cause	Number of ACMA compliance activities
Inadequate signal level	4
Overpowered operation	6
Planning failures	6
Receiver antenna faulty	6
Transmitter antenna faulty	6
Receiver faulty	7
Defective equipment – non-radiating	10
Powerline electrical interference	11
Propagation peculiarities	11
Incorrect emission	15
Installation faulty	16
Amplifier faulty	21
Intermod/desense/image	24
Foreign signal	39
Transmitter faulty	68
Unlicensed operation	77
Defective equipment – radiating	93
Other*	268
Total	688
Interference remedy advised to client	Number of ACMA compliance activities
LOP not achieved – in band QRM resolved	2
Receiver selectivity to be improved	5
Referred to electrical supply authority	6
No protection afforded	8
No economical cure	10
Tx unintended emissions suppressed	17
Defective equipment rectified	43
Improve site engineering	43
Service recommended	98
Other*	141
QRM ceased without identification	154
Use of offending equipment discontinued	161
Total	688

* 'Other' includes cases where the interference cause is unknown (not identifiable), there are several causes of interference, or the interference has disappeared.
 Note: QRM is an abbreviation for man-made noise.

Table 4.14: Identified contraventions of the Act and subsequent ACMA enforcement action for radiocommunications interference complaints, 2008–09

Type of compliance enforcement action	Number of contraventions	Legislation	Section	Section description
Advice Notice (RF 169)	1	<i>Radiocommunications Act 1992</i>	192	Interference likely to prejudice safe operation of vessels, aircraft or space objects
	1	<i>Radiocommunications Act 1992</i>	47	Unlawful possession of radiocommunications devices
	4	<i>Radiocommunications Act 1992</i>	113	Contravention of conditions
	4	<i>Radiocommunications Act 1992</i>	46	Unlicensed operation of radiocommunications devices
	58	<i>Radiocommunications Act 1992</i>	197	Causing interference
Warning Notice (RF 168)	1	<i>Radiocommunications Act 1992</i>	160	Supply of non-standard devices
	1	<i>Radiocommunications Act 1992</i>	194	Interference likely to endanger safety or cause loss or damage
	11	<i>Radiocommunications Act 1992</i>	113	Contravention of conditions
	23	<i>Radiocommunications Act 1992</i>	46	Unlawful possession of radiocommunications devices
	25	<i>Radiocommunications Act 1992</i>	197	Causing interference
Total	129			

Further information

Publications

- > Attorney-General's Department, *Report of the Review of the Regulation of Access to Communication*, 2005.

Organisations

- > Australian Communications Exchange
www.aceinfo.net.au