



**Roinn Cumarsáide,
Fuinnimh & Acmhainní Nádirtha**
Department of Communications,
Energy & Natural Resources

Emergency Call Answering Service

ANNUAL REVIEW 2015



The EU Emergency Phone Number

TABLE OF CONTENTS

BACKGROUND	1
ECAS FUNDING - CALL HANDLING FEE	2
VOLUME OF CALLS	2
<u>CALL VOLUME BY CATEGORY</u>	3
<u>BREAKDOWN OF CALLS BY EMERGENCY SERVICE</u>	5
QUALITY OF SERVICE	5
<u>CALL HANDLING TIME (CHT)</u>	6
<u>% CONNECTED CALLS/CHT</u>	7
<u>PERCENTAGE OF CALLS ANSWERED WITHIN 5 SECONDS (PAC5)</u>	8
112 SMS	8
ECAS CERTIFICATION	10
GOVERNANCE	10
APPENDIX 1: GLOSSARY OF CALL CLASSIFICATIONS	12

TABLE OF FIGURES

FIGURE 1 ECAS CALL VOLUMES 2009 - 2015	2
FIGURE 2: MONTHLY CALL VOLUMES 2009-2015	3
FIGURE 3: CALL VOLUMES BY CATEGORY 2010-2015	4
FIGURE 4: % CALL BREAKDOWN BY CLASSIFICATION 2010-2015	4
FIGURE 5: BREAKDOWN OF EMERGENCY CALLS FOR 2015 BY EMERGENCY SERVICE	5
FIGURE 6: SUMMARY OF ECAS KEY PERFORMANCE INDICATORS (KPI) FOR 2015	6
FIGURE 6: CALL HANDLING TIME 2015	7
FIGURE 7: CORRELATION BETWEEN THE % OF CALLS CONNECTED AND THE AVERAGE CHT	7
FIGURE 8: PAC5 FOR 2015	8
FIGURE 9: VOLUMES OF 112SMS 2015	9



INTRODUCTION

The Emergency Call Answering Service (ECAS) is responsible for answering all 112 and 999 calls and texts to the Emergency Services in the State. The ECAS identifies the townland or county of the incident and the appropriate emergency Service (Garda, Fire, Ambulance or Coast Guard and Air Traffic Control in emergencies involving aircraft). The call or text is then transferred to the appropriate Emergency Service which then takes responsibility for the call and responds to the emergency. The ECAS operators continue to monitor the call until it has been accepted by the emergency service.

The ECAS provides a vital link between the caller and the Emergency Services ensuring the caller is connected through to the requested service. The ECAS filters out non-emergency calls and frees up time and resources of the Emergency Services to manage genuine requests for assistance. Although not every call to the ECAS is connected to the Emergency Services, all calls to the ECAS must be answered promptly and effectively to establish the nature of the call.

BACKGROUND

Section 58B of the Communications Regulation Act 2002 (the 2002 Act) gives the Minister the power to enter into a contract for the operation of the ECAS.

An invitation to tender for a concessionaire to operate the ECAS was issued in September 2007. BT Ireland was successful and a concession agreement was signed with BT Ireland on 12 February 2009. BT commenced operations on 14 July 2010. The concession agreement was for an initial period of 5 years, with options to extend the agreement by up to two years. The options to extend have been exercised and the agreement will now terminate on 14 July 2017.

In accordance with relevant Irish legislation¹, emergency calls are free of charge to the caller on all telecommunications networks. The ECAS is funded through a Call Handling Fee (“CHF”). This is a fee payable by the telecommunications network operators and/or the telephone call service provider whenever a call is made to the ECAS.

¹ Regulation 5 of the European Communities (Electronic Networks and Services) (Universal Service and Users’ Rights) Regulations 2011



ECAS FUNDING - CALL HANDLING FEE

The 2002 Act provides the legal basis for the funding of the ECAS by providers of electronic communications networks or services. A Call Handling Fee (CHF) for every emergency call is imposed on the service provider on whose network the call originates. Section 58C of the 2002 Act provides that the charge is fixed by contract for the first 2 years. Section 58D provides for the Commission for Communications Regulation (ComReg) to determine the maximum fee thereafter and to ensure the reasonable costs of operating the service are recovered by the ECAS Operator.

ComReg reviews the maximum CHF that may be charged by the ECAS operator annually. In determining the CHF for each year, ComReg analyses the reasonable costs claimed by the ECAS Operator. ComReg is further informed by the views of industry respondents provided in responses to ComReg's annual industry consultation on the matter. The CHF charged for calls to the ECAS pays for the capital costs and annual running costs.

In February 2015, having concluded its annual review, ComReg set the maximum permitted CHF at €3.82 for the year 12 February 2015 to 11 February 2016.

VOLUME OF CALLS

ECAS received a total of 1,860,335 calls in 2015. The total volume of calls has decreased year on year, with an overall reduction of 47.95% between 2009 and 2015.

ANNUAL CALL VOLUMES						
2009	2010	2011	2012	2013	2014	2015
3,574,225	3,230,263	2,833,804	2,802,406	2,684,324	2,149,445	1,860,335

FIGURE 1 ECAS CALL VOLUMES 2009 - 2015

The reduction in call volumes is primarily due to:

- (a) Reduced calls being received in ECAS due to faulty telephone lines and
- (b) Changes in the design of mobile handsets and the significant increase in the use of smartphones in Ireland which make it more difficult to accidentally dial 112/999. Previous handset design had caused inadvertent calls to be put through to the ECAS.

Figure 2 hereunder shows the downward trend of call volumes from 2009 to 2015 on a monthly basis. Factors such as weather, flooding, holiday periods and the number of weekends in a month influence monthly call volumes.

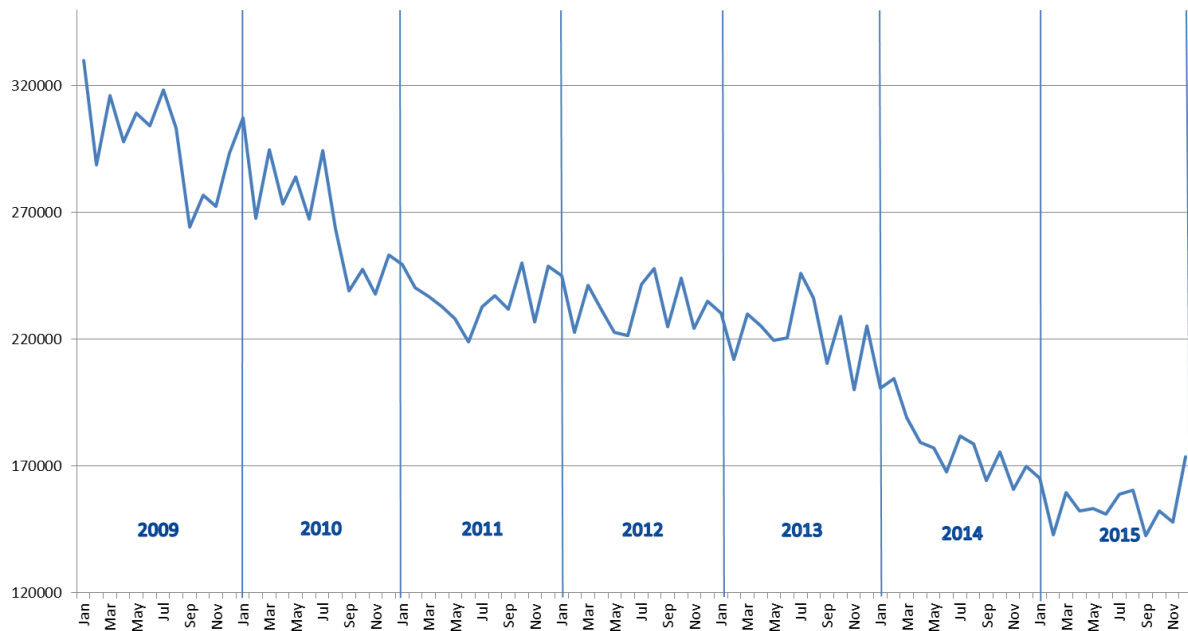


FIGURE 2: MONTHLY CALL VOLUMES 2009-2015

Call Volume by Category

In 2015, approximately 800,000 calls of total calls were categorised as normal calls; these are calls in which a caller directly requested a specific emergency service and was connected accordingly. The number of normal calls has not changed significantly since 2011.

Other call classifications have generally experienced a decline over the past number of years. The “Silent Calls” category has shown the largest reduction, with a decrease of 864,000 calls between 2010 and 2015. “Silent Calls” are calls to the ECAS which remain open without the caller speaking. A full glossary of call classifications is attached at Appendix 1.

Figure 3 hereunder illustrates the changes in call volumes across the different categories from 2010 to 2015.

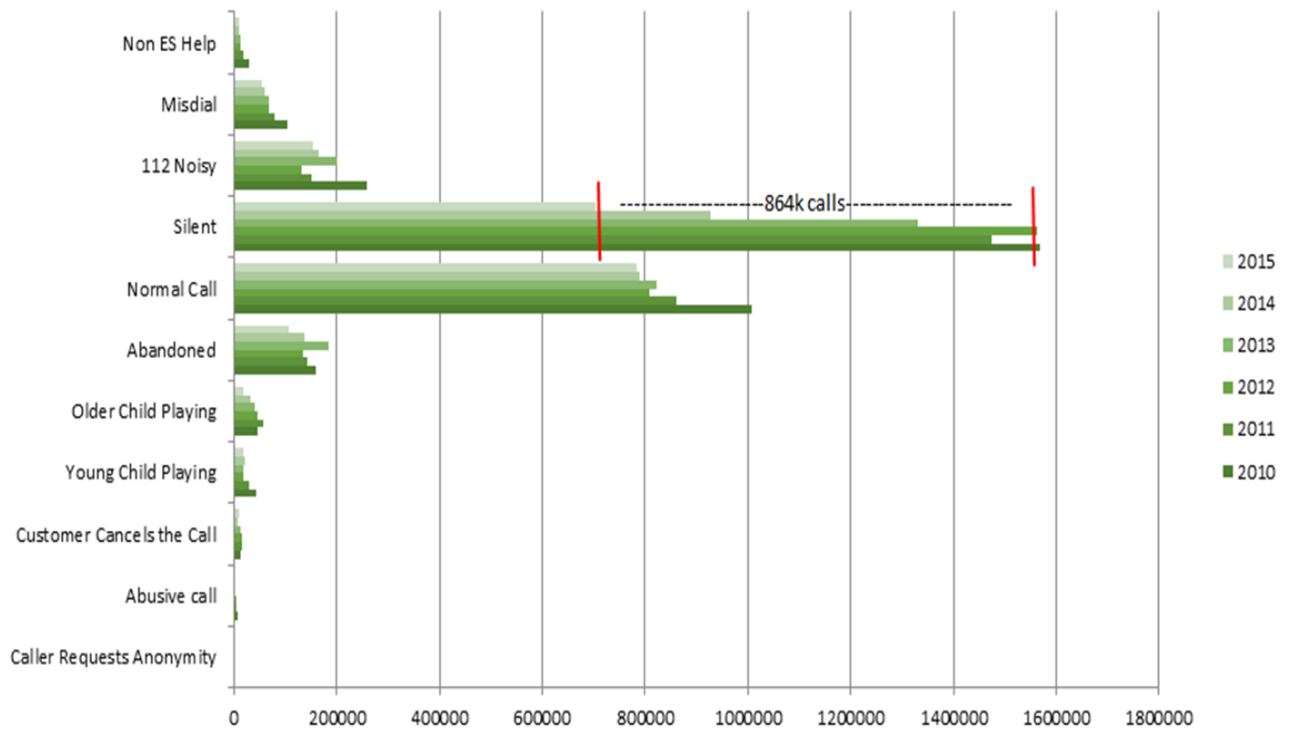


FIGURE 3: CALL VOLUMES BY CATEGORY 2010-2015

Percentage Call Breakdown by Classification

The percentage of Silent Calls in Figure 4 hereunder includes calls classified as “Cleared without speech”.

The percentage for “Other” includes the following categories: “Abandoned”, “Non ES Help”, “Customer Cancels”, “Misdial”, “Abusive”, “Younger Child Playing” and “Older Child Playing”.

Call Classification	2010	2011	2012	2013	2014	2015
Normal Call	31.2%	30.4%	28.9%	30.7%	36.8%	42.1%
Silent Calls	48.5%	52.0%	55.8%	49.5%	43.2%	37.8%
112 Noisy	8.0%	5.4%	4.7%	7.4%	7.6%	8.3%
Other	12.3%	12.2%	10.6%	12.4%	12.4%	11.9%

FIGURE 4: % CALL BREAKDOWN BY CLASSIFICATION 2010-2015



Breakdown of Calls by Emergency Service

The overall breakdown of calls to the Emergency Services remains constant year on year with approximately 50% of calls filtered out annually, with the remainder connected to the Emergency Services. Approximately 60% of connected calls go to An Garda Síochána, 30% to Ambulance, 8% to Fire and 1% to Coast Guard. In addition to Normal calls listed at Figure 4 above, a proportion of calls from other classifications are forwarded to the Emergency Services bringing the total percentage of Connected calls to 49.1%.

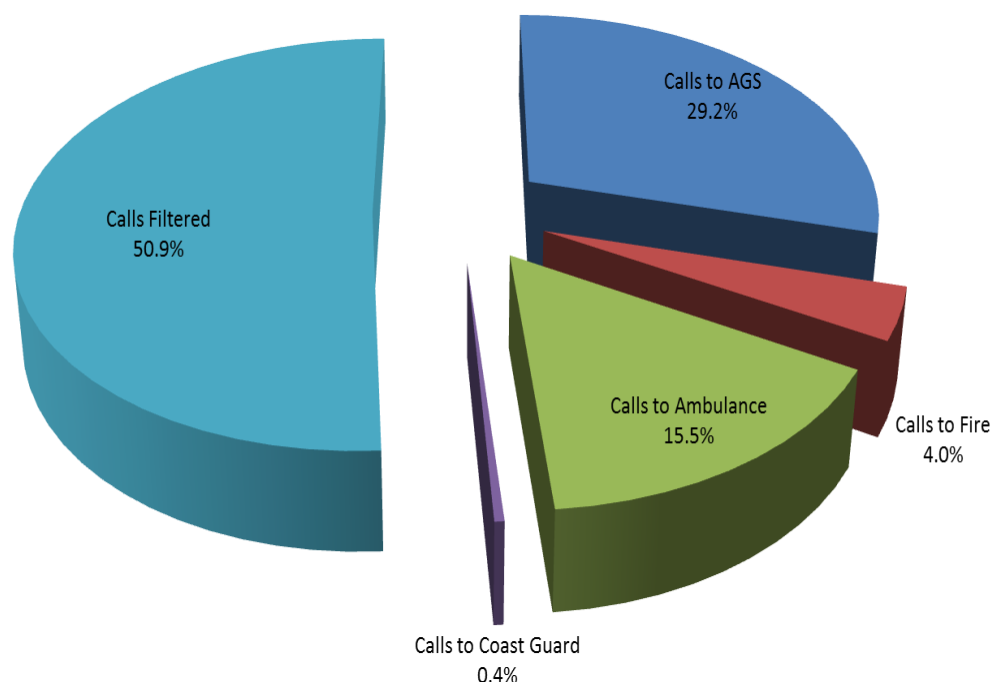


FIGURE 5: BREAKDOWN OF EMERGENCY CALLS FOR 2015 BY EMERGENCY SERVICE

QUALITY OF SERVICE

The ECAS has performed to a consistently high standard and has exceeded the performance levels set out in the Concession Agreement. It has handled over 14 million calls since its launch in July 2010. In that time, it has filtered out over 7.15 million calls freeing up time and resources of the emergency services to deal with genuine emergency calls.

The service has been available 24 hours a day, 365 days a year since it was launched in July 2010 and with an average speed of answer for a caller to ECAS in 2015 of 0.73 seconds. This



is one of the fastest in Europe according to the report *“Implementation of the European emergency number 112”*² published by the European Commission in February 2016.

Calls are connected to the Emergency Services with details of the emergency and the location of the caller within an average of 7.26 seconds. The ECAS has a target of 99% call handling accuracy which has been continuously achieved averaging at 99.6%.

ECAS KPIs	Threshold	Outcome
ECAS Availability	99.999% on a 12 month rolling period	100.00%
Average Speed of Answer	1.3 sec One Day	0.73
PAC 5	97.5% One Day	98.58%
Accessibility Index (Hit rate)	85% one day	99.14%
Complaints (total)	2 per month or 1 for every 200,000 calls	1
Standards certification	Annual Certificate Inspection	Yes
Average Call Handling Time	36 seconds One Day	35.8
Average Call Routing Time	Less than 15 seconds for 90% of routed calls. One Day	7.26
Average Call Abandon Rate	< 12% One Day	5.70%
Call Handling Accuracy	99% Monthly	99.60%

FIGURE 6: SUMMARY OF ECAS KEY PERFORMANCE INDICATORS (KPI) FOR 2015

Call Handling Time (CHT)

The Call Handling Time measures the time between the operator answering the call and the termination of the call. It includes the handover of the call to the Emergency Services and the duration of the conversation between the Caller and the Emergency Services operator. As the number of silent calls has decreased over the lifetime of the Concession Agreement, there has been a general upward trend in the call handling time for 2015. Connected calls take significantly longer to handle on average due to the time taken to obtain details from the callers, and ensuring the correct handover procedures are followed to ensure accurate information exchange with the Emergency Services operator regarding location and relevant incident information. A reduction in silent calls leads to the percentage of connected calls

² <https://ec.europa.eu/digital-single-market/en/news/implementation-european-emergency-number-112-results-ninth-data-gathering-round>



increasing as the number of connected calls remains static. As a result, the average Call Handling Time has tended to increase.

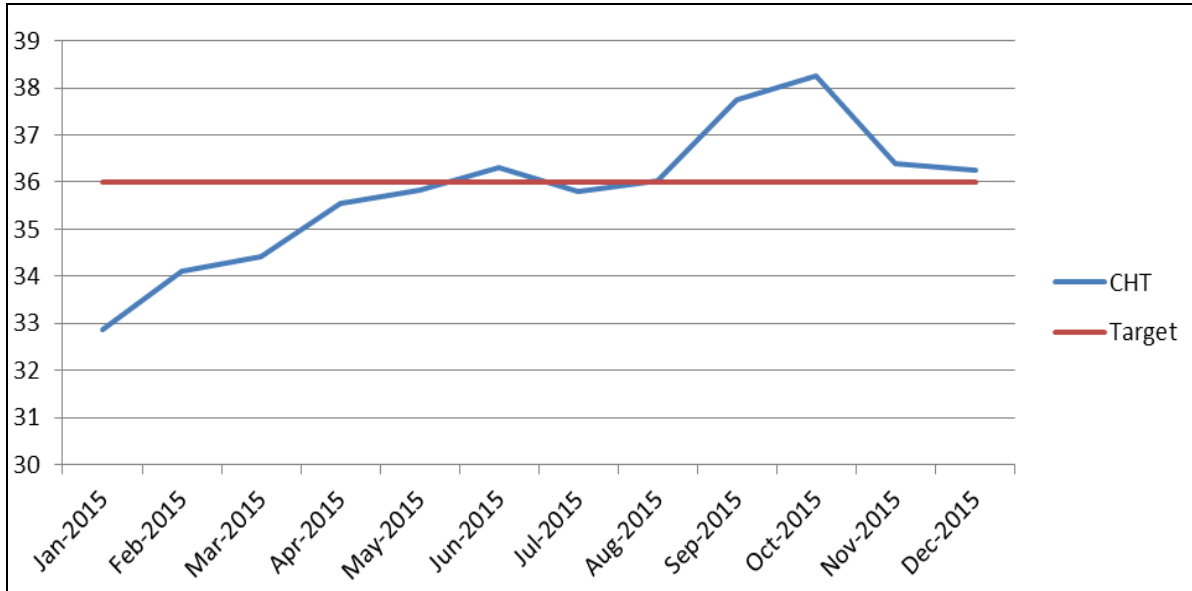


FIGURE 7: CALL HANDLING TIME 2015

% Connected Calls/CHT

Figure 7 illustrates the correlation between the percentage of calls connected to the Emergency Services and the Average Call Handling Time. As the percentage of connected calls increases the call handling time also increases. The inverse is also true.

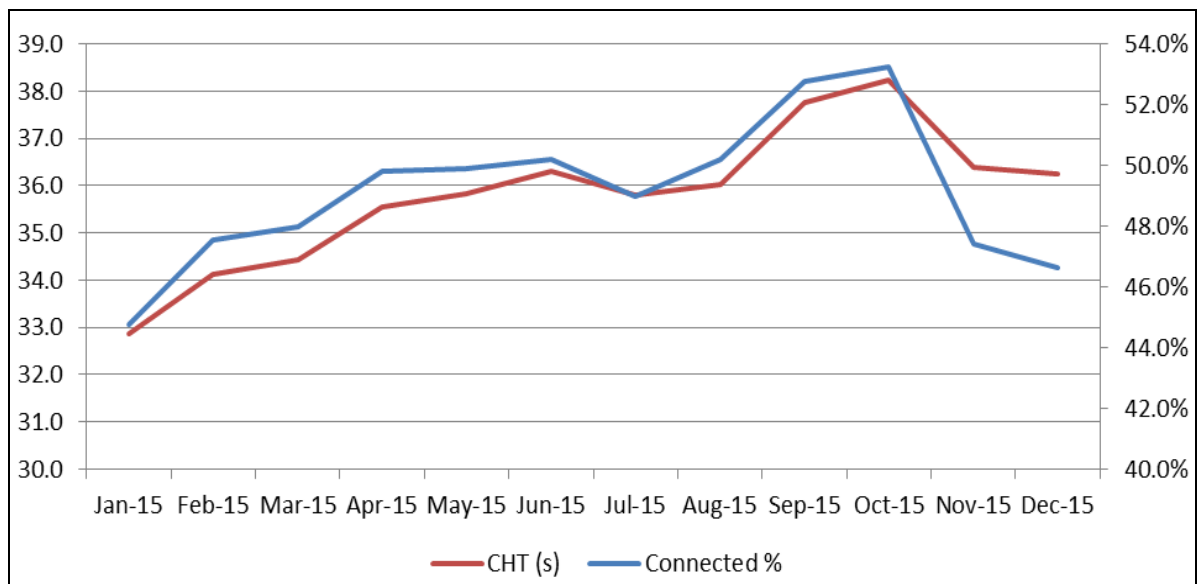


FIGURE 8: CORRELATION BETWEEN THE % OF CALLS CONNECTED AND THE AVERAGE CHT



Percentage of Calls Answered within 5 Seconds (PAC5)

PAC5 is another key performance indicator (KPI) which requires ECAS to answer 97.5% of calls within 5 seconds. In 2015, ECAS exceeded the requirements of PAC5 with 99.18% of calls being answered within 5 seconds.

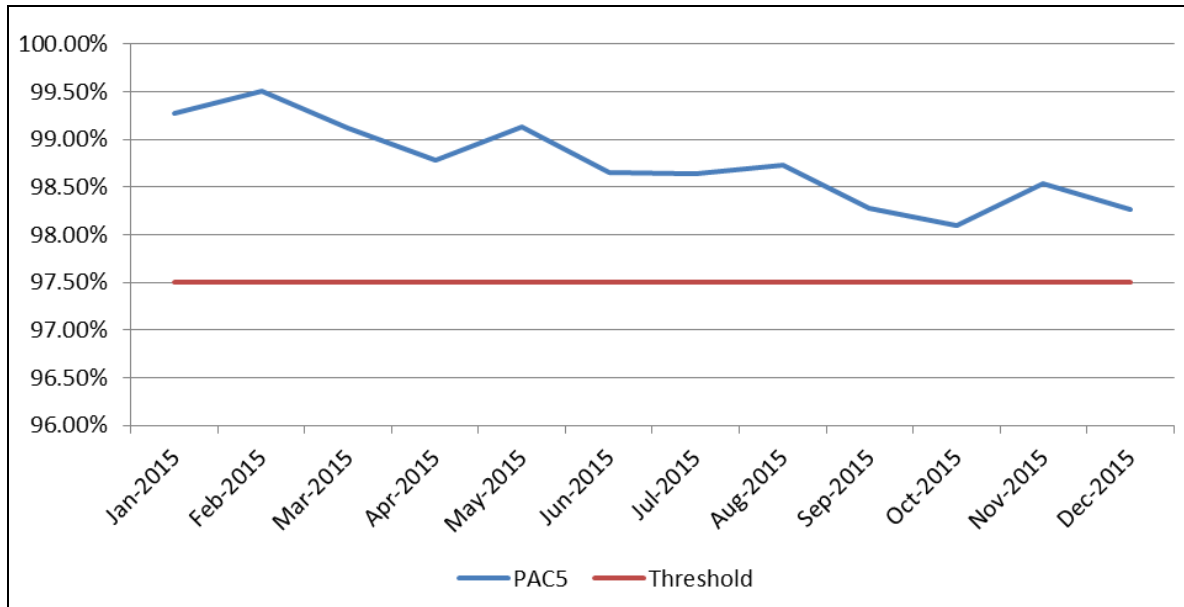


FIGURE 9: PAC5 FOR 2015

112 SMS

ECAS also manages an emergency text messaging service which is available to callers in the Republic of Ireland, in particular, deaf, hard of hearing and speech-impaired people to send an SMS text message to the Emergency Call Answering Service (ECAS). As with 112/999 voice calls, all 112SMS texts are free of charge to the texter. Callers may register for the service on the website http://www.112.ie/Registering_your_mobile_phone/143. In 2015 ECAS handled 1,777 112SMS messages.

Following a 6 month pilot from January to June 2012, the 112SMS (Short Message Service) was introduced and the service is now available on a permanent basis. Details of the text messages are relayed by the ECAS to the relevant Emergency Service. The ECAS operator acts as an intermediary between the texter and the Emergency Service operator. As SMS uses a different technology to communicate than voice calls, it doesn't need the same quality of reception and may function in areas of poor quality mobile coverage.

Further information is available on the website http://www.112.ie/112_SMS_Service/142.



Ireland is one of the first countries in Europe to provide an SMS service. The Department along with the ECAS Operator will continue to monitor advances in technology as part of a continuous improvement process to develop the 112/999 services, particularly for people with disabilities.

The 112SMS service was enhanced in 2014 to enable Multi-Part texts to be processed. This improvement means that incoming texts which span more than one message are now presented in the ECAS as one message with the different pages of the messages collated. This enhancement has improved the speed and accuracy with which such emergency texts can be processed and delivered to the Emergency Services.

Limitations of 112SMS service

SMS technology is not a real-time service with a guarantee of delivery of the text message. If no reply is received to an SMS within 3 minutes, the ECAS recommends that a texter sends a second 112SMS (there is no charge to the texter for 112SMS messages). However, if a person is able to make a voice call to 112 or 999, including a person with a speech impediment, the ECAS recommends that the person does so.

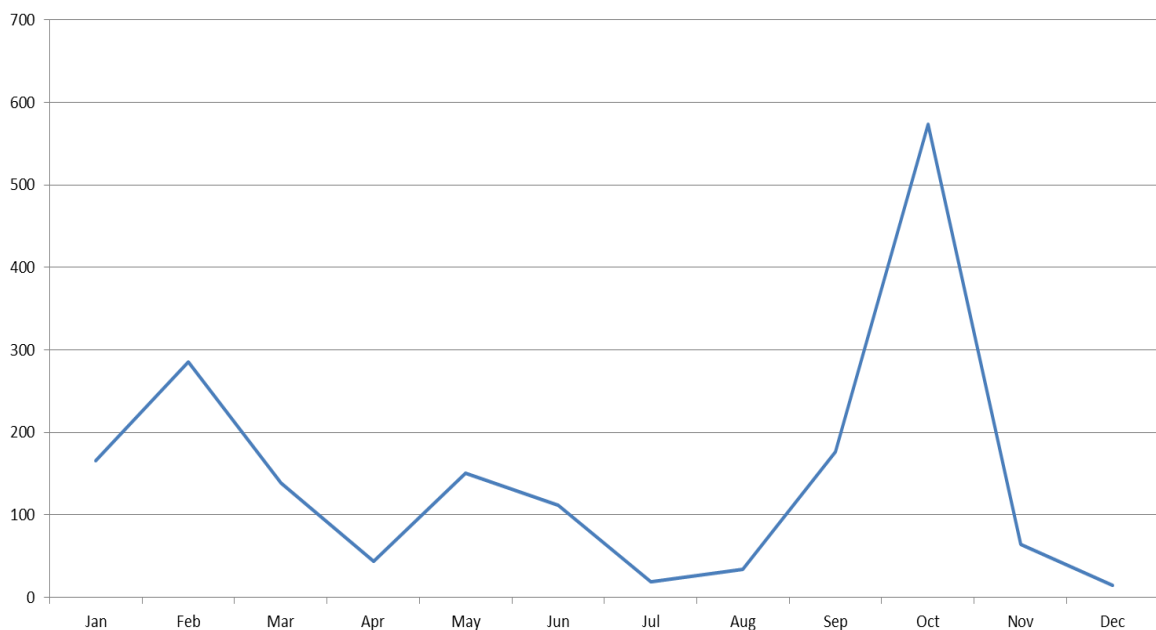


FIGURE 10: VOLUMES OF 112SMS 2105



ECAS CERTIFICATION

The ECAS has secured the following certifications:

- ISO9001 - sets out the steps necessary to adopt a quality management system. It is designed to help organisations ensure they meet the needs and expectations of both customers and other interested parties, based on internationally recognised quality management principles set out by the International Standards Organisation (ISO).
- ISO27001:2013 - sets out the requirements of information security management system. It is part of the ISO 27000 family of standards relating to information and cyber security and offers a comprehensive set of controls, based on best practice in information security.
- ISO22301:2012 - helps you to understand and minimise the risks of challenging and unexpected disruptions, actively promoting to all that you are prepared thus protecting your business, staff, reputation and future.

GOVERNANCE

The ECAS Service is managed through a number of forums: the ECAS Emergency Services Group, the ECAS Liaison Committee, the ECAS Industry Forum and the ECAS Operator Forum. Each group meets at regular intervals throughout the year with all meetings minuted.

DCENR also carries out monthly call operational audits at the ECAS centre which form the basis for operational reviews.

The **ECAS Emergency Services Group** acts as the Project Board for the ECAS and is chaired by the Department of Communications, Energy and Natural Resources (DCENR). It consists of representatives of DCENR, An Garda Síochána, the National Ambulance Service, the Fire Service, the Irish Coast Guard, the Irish Aviation Authority, the Department of Environment, Community and Local Government and the ECAS Operator (currently BT Ireland). Its role is to act as an advisory board and advise the Minister for Communications, Energy and Natural Resources on the management of the Emergency Service Answering Service. It meets quarterly and is chaired by DCENR.

The **ECAS Liaison Committee** is chaired by DCENR and consists of representatives of DCENR and the ECAS Operator. The Liaison Committee meets quarterly and considers operational performance, operational matters arising, and service enhancements.



The **ECAS Industry Forum** is chaired by ComReg and consists of representatives of ComReg, DCENR, the ECAS Operator (BT Ireland) and the Telecoms Industry. It is chaired by Comreg and facilitates discussion on issues relating to ECAS between ComReg, DCENR, the ECAS Operator (BT Ireland) and the Telecoms Operators.

The **ECAS Operator Forum** is a forum for the telephone operators to present matters relating to operational aspects of the ECAS to DCENR including proposals for changes in procedures to improve handover to Emergency Services and enhance the quality of service to callers.



Appendix 1: Glossary of Call Classifications

Call Classification	Definition	Speech Present?
Normal	A normal call where a person makes a service request and the call is connected to an Emergency Service	Y
Cleared Without Speech	A call where the caller clears the call without making a service request	N
Silent Calls	A call which remains open without the caller speaking. These calls are triaged according to the “Silent Call” procedures	N
Children Playing	Calls from children that are triaged in accordance with the Young/Old Child/ Adult Playing procedures	Y
Abusive	A call from members of the public that are Abusive to the ECAS Operator where no request for an Emergency Service is made	Y
Non ES Help	A call where the caller makes a request for a service outside of the four named Emergency Service	Y
Misdials	A call where the caller indicates that they have made an error in calling the ECAS	Y
Customer Cancels	A call where the customer speaks and cancels the call	Y
Abandoned	A call that terminates before it can be presented to the next available ECAS Operator	N
Text Devices & Relay Services	Calls that present to the ECAS Operator via the Text Relay interface or are received by the ECAS Operator as a phone call from a registered Relay Service	N