



Report for ComReg

Review of maximum permitted emergency call handling fee for 2024/2025

23 October 2023

Ref: 796848686-431

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1 Introduction

In Ireland, the emergency services are called by dialling 999 or 112, and these calls are initially received by the Emergency Call Answering Service (ECAS). Emergency calls are currently free of charge to the caller on all networks. The ECAS is funded through the Call Handling Fee (CHF). The CHF is charged by the ECAS operator, BT Communications Ireland Limited (BT), to the operator on whose network the emergency call originates.

The current CHF is EUR3.78 per call, as determined by the Commission for Communications Regulation (ComReg) in December 2022, pursuant to Section 58D (1) of the Communications Regulation Act 2002 (as amended). The contract with the ECAS operator is approaching its annual review point, which triggers an assessment of the maximum permitted CHF that the ECAS operator can charge for handling emergency calls.

ComReg has selected Analysys Mason to provide assistance in relation to the CHF review. This report sets out the findings of our work:

- Chapter 2 sets out our cost review
- Chapter 3 presents our review of call volumes
- Chapter 4 describes our calculation of the CHF

Items in this report marked with [§<] have been redacted due to confidentiality requirements.

2 Cost review

The cost review provides an assessment of whether or not the costs borne by BT in operating the ECAS since 1 April 2022 and the associated cost forecasts are reasonable and that none could be considered unnecessary, avoidable or excessive.

The main cost components of the ECAS are operating costs, depreciation and financial costs, as shown in Figure 2.1 below. Total costs are presented in this report as follows:

- ‘Bid Total’ represents the total projected costs at the time the ECAS contract was awarded to BT.
- ‘Contract Total (2022)’ represents the total costs projected by BT during the 2022 CHF review.
- ‘Contract Total (2023)’ represents the total costs projected by BT during the current CHF review.

Figure 2.1: Total costs [Source: BT, Analysys Mason, 2023]

[X]

The total projected costs for the full ECAS contract period are estimated at [X] million, an increase of [X] compared to the 2022 costs. The total projected cost represents a net cost increase of [X] compared to the Bid Total.

While our CHF review has been supported by multiple meetings with BT, a model with revenues and costs broken out on a quarterly basis and a written question and answer process, we have not had visibility of BT’s audited accounts or quarterly management accounts. We recommend that this documentation be considered in future CHF reviews.

The following subsections present an assessment of the changes within each of the three cost categories: operating costs, depreciation and financial costs.

2.1 Operating costs

The main components of ECAS operating costs are shown in Figure 2.2 below.

Figure 2.2: Operating costs [Source: BT, Analysys Mason, 2023]

[X]

As of October 2023, the total projected operating costs for the full ECAS contract period are estimated at [X] million, an increase of [X] compared to 2022, the period under review. The total projected cost represents a net cost increase of [X] compared to the Bid Total.

The main causes of change in operating costs for the period under review are described below.

BT staff costs

Since the previous review, total BT staff costs have increased by approximately [X] over the contract period. These are primarily due to an increase in travel and subsistence expenses, that BT explained have arisen due to appropriate travel costs¹, as well as an increase in the cost for employee health insurance and disability cover.

Call-centre staff costs

Since the previous review, total costs for call-centre staff have increased by approximately [X]. Several factors contributed to this increase with a key factor being cost-of-living-related increases in base pay for call centre staff of [X] as of February 2023 and [X] from July 2024 onwards. There has also been an increase in staff time requirements due to an increasing complexity associated with connecting calls as a result of technology developments.

Staff additions have also contributed to increased costs with a net addition of one call operator in the period to March 2023 and a further two additions expected from mid-2023 onwards.

Network services

Since the previous review, network service costs have decreased by approximately [X] over the contract period. Savings have been made due to a resiliency upgrade to remove [X] circuit, removing a recurring rental charge.

Premises

Since the previous review, premises costs have increased by approximately [X] over the contract period. This is driven by an updated electricity cost forecast to account for the fact that electricity costs have not reverted to normal levels to the extent expected in the previous CHF review. Additionally, lighting in Ballyshannon has been upgraded to LEDs incurring a capital cost as well as a one-off roof repair to fix damage caused by an extensive leak.

Due to the ongoing presence of Covid-19, BT has assumed that its ECAS premises will continue to be cleaned at an intensity similar to that carried out during the Covid-19 pandemic phase.

Other

Since the previous review, costs categorised as ‘other costs’ have increased by approximately [X] over the contract period.

¹ Travel includes technical visits, emergency services and senior management visits to BT UK and Irish call centres

2.2 Depreciation

The main components of ECAS depreciation costs are shown in Figure 2.3 below.

Figure 2.3: Depreciation [Source: BT, Analysys Mason, 2023]

[X]

As of October 2023, the total projected depreciation costs for the full ECAS contract period are estimated at [X] million, with no change compared to the previous review. The total projected cost represents a net cost increase of [X] compared to the Bid Total.

The key cost components have not changed for the period under review.

Set-up costs

Since the previous review, set-up costs have not changed.

Other

Refresh costs are costs put in place to allow for replacement of certain network items during the lifetime of the ECAS contract. There has been no change in these costs since the previous review. We recommend this is examined in detail in a subsequent CHF review, to address recoverability of the projected refresh costs.

2.3 Financial costs

The main components of ECAS financial costs are shown in Figure 2.4 below.

Figure 2.4: Financial costs [Source: BT, Analysys Mason, 2023]

[X]

As of October 2023, the total projected financial costs for the full ECAS contract period are estimated at [X] million, a decrease of [X] compared to 2022, the period under review. The total projected cost represents a net cost decrease of [X] compared to the Bid Total.

Both the sinking fund cost and the guaranteed return are fixed for the duration of the contract period. The small change described above is the result of the requirement to select a CHF rounded to the nearest cent to provide the necessary guaranteed return.

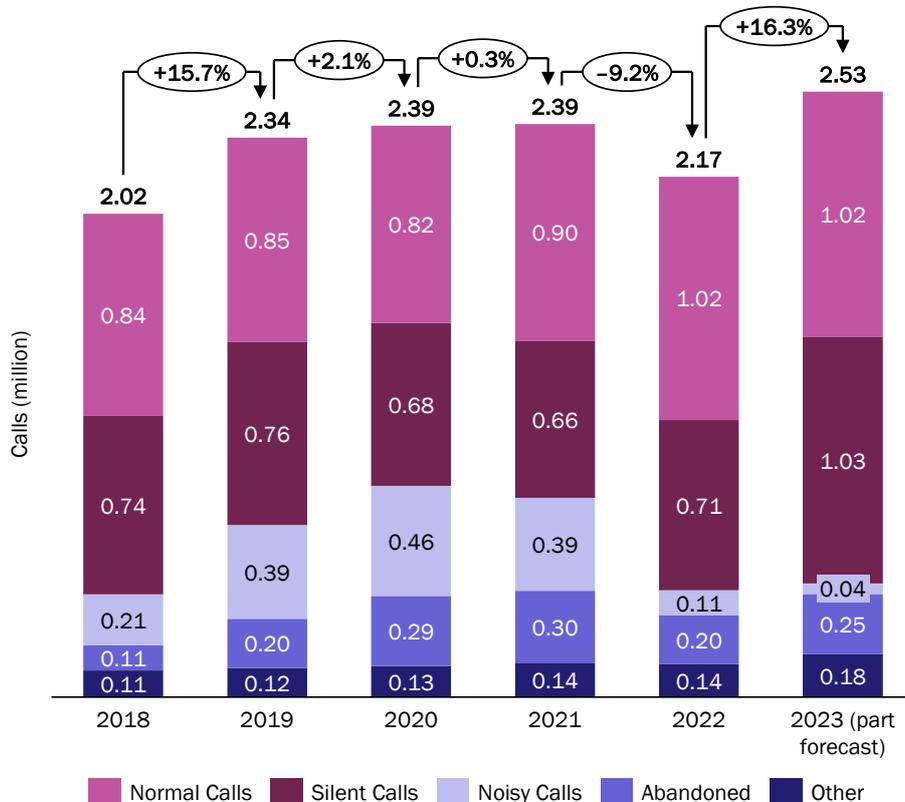
3 Call volumes

3.1 Call volumes to date

In updating the call volume forecast, BT and ComReg have been mindful of the contribution of silent and abandoned calls to total ECAS call volumes. Silent calls are those in which the calling party does not speak or provide input to the operator when the call is answered, whilst abandoned calls are those calls of extremely short duration which are terminated before the call can be answered by an operator.

The volume of silent calls has seen a significant rise in 2023, in particular those originating from mobile devices. Between January and August 2023 silent calls totalled 729 748, up from 469 935 for the same period in 2022, a 55.3% increase. Abandoned calls also saw a moderate increase of 21.5% for the same period. At the time of the previous CHF review in 2022, abandoned calls were expected to continue to decline as seen between 2021 and 2022, this however has not materialised. The increase in silent and mobile calls have contributed to an overall increase in call volumes from 2022 to 2023 as shown in Figure 3.1 below.

Figure 3.1: Contribution to total annual (calendar year) call volumes by type² [Source: BT, Analysys Mason, 2023]



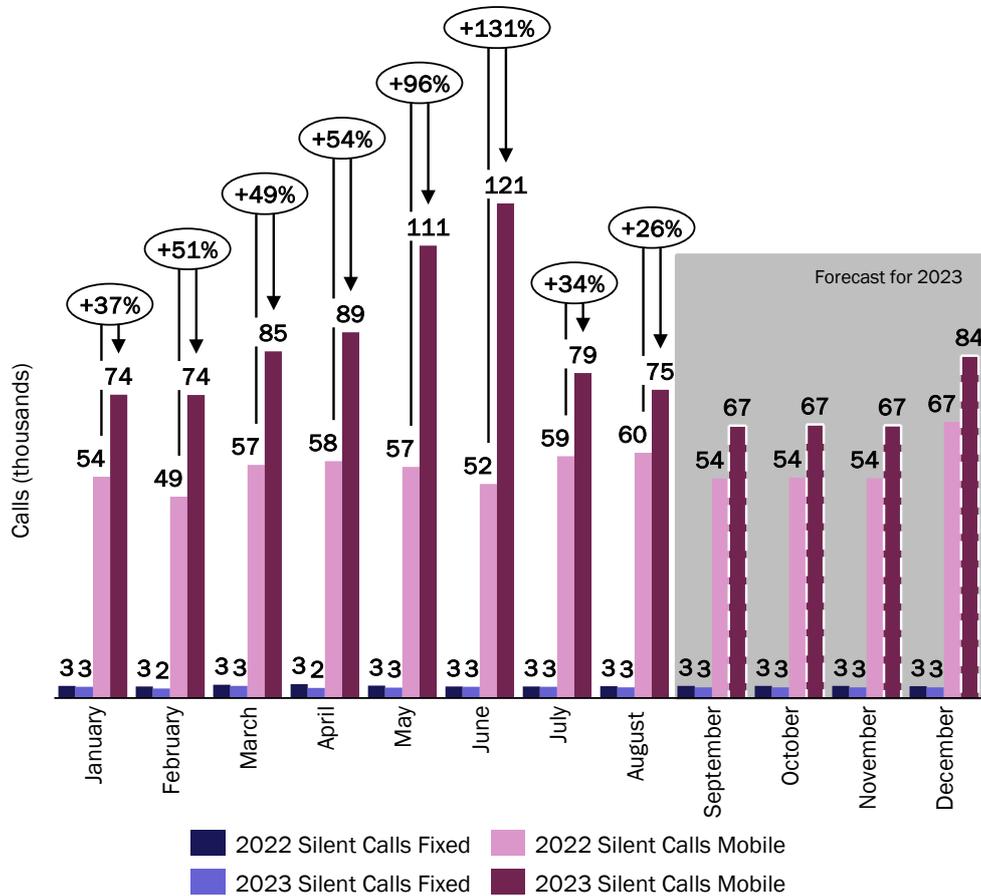
² Numbers may differ slightly from last year's report due to rounding in source data.

As identified in last year’s review the trend of declining noisy calls is expected to continue, having started in the final months of 2021 and persisting throughout 2022. The contribution of these calls for 2023 is expected to be approximately 62 000 fewer calls than in 2022.

3.1.1 Silent and abandoned calls from mobile devices

Using data provided to us by BT we have been able to estimate the total volume of silent calls according to the device type on which the call originated. The increase in silent calls between 2022 and 2023 seen in Figure 3.1 can be largely attributed to calls originating on mobile devices rather than fixed line devices. Silent mobile calls accounted for 97% of all silent calls on average between December 2022 and August 2023.

Figure 3.2: Silent call volumes by month 2022 vs 2023 [Source: BT, Analysys Mason, 2023]



Based on reports from the European Emergency Number Association (EENA)³, we believe that this unexpected rise in silent mobile calls has arisen due to software changes on certain Android mobile devices, with a feature being added which utilises hardware buttons to make emergency calls. This feature can result in an emergency call being made due to accidental pressing of buttons. Such calls are mostly registered as silent calls to the ECAS with a smaller proportion being registered as

³ <https://eena.org/knowledge-hub/news/false-calls-originating-from-android-devices-acknowledged-by-handset-operators/>

abandoned calls. This issue appeared to take effect in December 2022 and has continued through August 2023. The increase in silent mobile calls accounted for 276 000 calls or 14.2% of total calls for this period.

We understand that as of June 2023 a software update to Android mobile devices has been made and is likely to reduce the volume of silent calls from these devices. This has informed the forecast for future call volumes as these are expected to gradually return to normal levels.

3.2 Call volume forecast

BT's call volume forecast has allowed for an increase in normal calls for future year forecasts owing to population and economic growth, whilst silent calls are expected to return to normal following the elevated period in 2023.

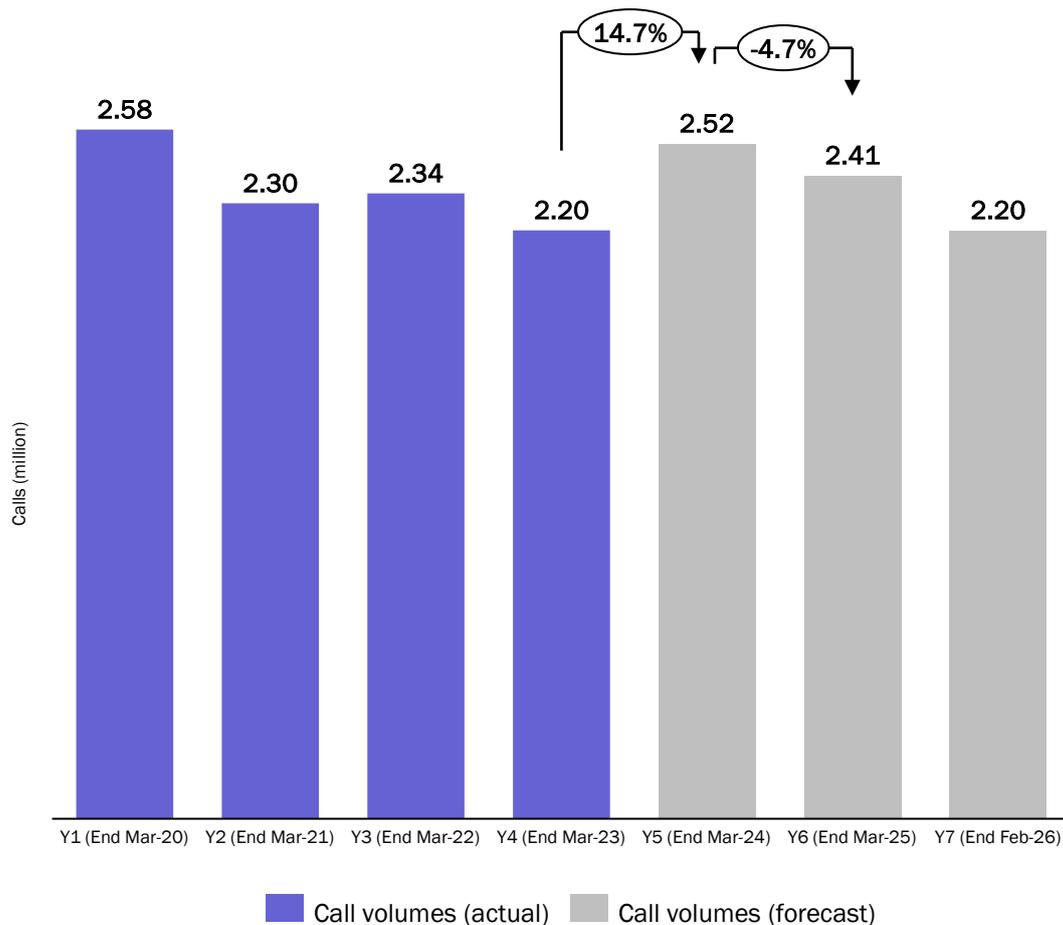
Figure 3.3: Forecasted call volumes 2024 vs 2023 [Source: BT, Analysys Mason, 2023]

Classification	Sep 2022-23		Forecast 2024		Change
	Daily volume	Yearly volume	Daily volume	Yearly volume	
Normal calls	2827	1 031 794	2950	1 079 700	4.4%
Noisy	152	55 298	95	34 770	-37.3%
Abandoned	626	228 642	630	230 580	0.6%
Silent	2660	970 809	2490	911 340	-6.4%
Other	441	160 965	390	142 740	-11.6%
Total	6706	2 447 508	6555	2 399 130	-2.2%

The annual call volumes for the contract to date and the forecast for the remaining contract period are shown in Figure 3.4 below. Note that the period ending March 2020 (Year 1) was a 13-month period, while the period ending February 2026 (Year 7) is an 11-month period, which contributes to volumes that are respectively higher and lower than average⁴.

⁴ Based on a review by the Department of Environment, Climate and Communications we understand that the operational period of the current ECAS contract will conclude c. November 2025 rather than February 2026 as indicated by the ECAS current CHF model. BT and ComReg agreed that the model would be updated, for the next CHF review to reflect this revised timeline.

Figure 3.4: Call volume forecast per financial year [Source: BT, Analysys Mason, 2023]



While the previous CHF review forecast that total call volumes for the 12-month period ending March 2023 (Y4) would be c.2 147 000, the actual outcome was 2 200 000, or 2.5% more calls than forecast. This increase in calls to date is primarily due to the increase in silent mobile calls previously explained in section 3.1.

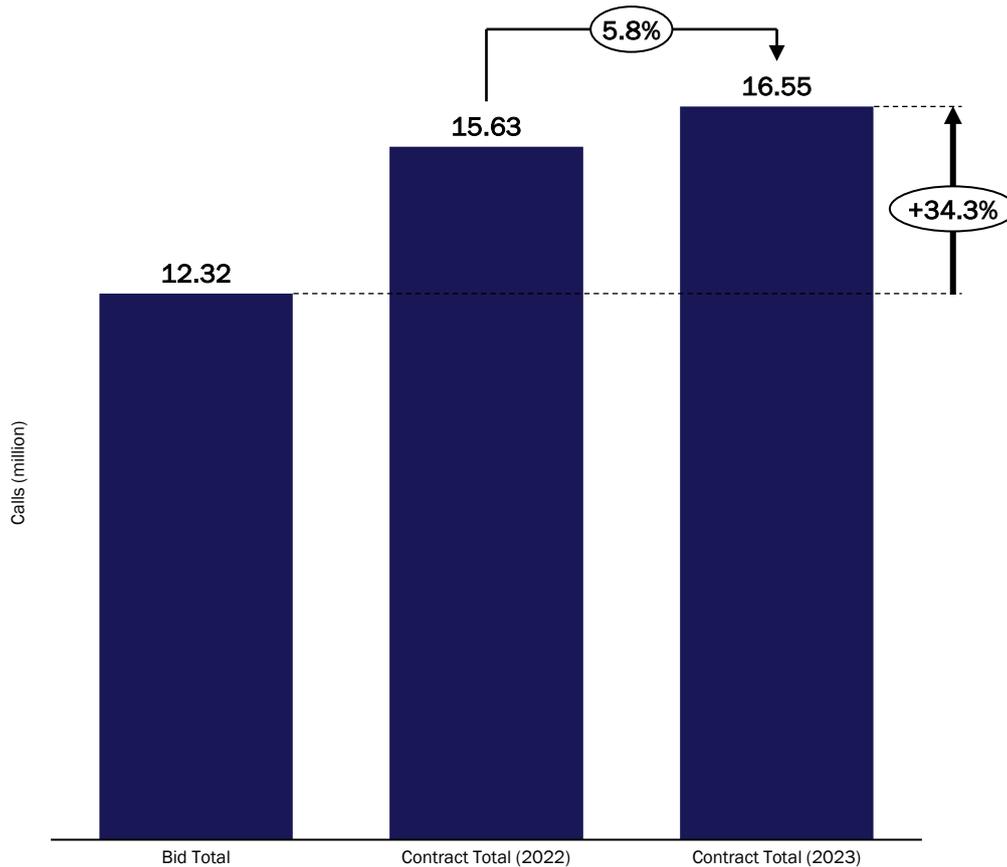
Looking ahead, while the total call volume for the 12-month period ending March 2024 (Y5) remains to be seen, the continuing trend of elevated silent and abandoned calls observed in 2023 suggests that the total may be 2 524 000, or ~17.4% higher than the 2 150 000 forecast in the previous CHF review. Should the silent mobile call volume increase have never happened, we would have expected the call volumes to have only risen by 2.4% between years 4 and 5. Following consultation with ComReg, BT has forecast total call volumes to decline over the remainder of the contract period due to the fix of the software issue on mobile devices correcting elevated silent mobile call levels coupled with the continuing trend of declining noisy and abandoned calls. Total call volumes in Year 6 (the penultimate year of the contract) are expected to decrease by 4.7% year-on-year. While call volumes are forecast to remain flat on 12-month basis between Year 6 and Year 7, this appears as a decline due to the shorter financial year.

This approach appears reasonable based on the data available, recent trends and the requirement to ensure that the CHF is set to ensure recovery of costs without large adjustments to the CHF in the final years of the contract period.

3.3 Change in call volumes

The net change in total call volumes across the contract period is shown in Figure 3.5 below.

Figure 3.5: Call volumes [Source: BT, Analysys Mason, 2023]



As of October 2023, the total projected call volumes for the full ECAS contract period are estimated at 16.55 million, an increase of 5.8% compared to the previous CHF review. This increase in call volumes has a significant impact on the CHF. The total projected call volume represents a net increase of 34.3% compared to the Bid Total.

4 Calculation of the CHF

The ECAS model requires the calculation of the CHF to take account of actual and forecast costs and volumes, such that the ECAS operator achieves the guaranteed return over the contract period.

To support the calculation of the CHF, Analysys Mason reviewed a draft CHF model provided by BT and participated in workshops with ComReg and BT to determine reasonable costs and volumes. Subsequently, BT provided an updated cost model⁵ and supporting information, taking account of the feedback provided.

Based on the reasonable cost review and updated CHF model, the new CHF is calculated at EUR3.12 for the period commencing 12 February 2024 to 11th February 2025, inclusive of an [X] sinking fund contribution as a deduction from the cost of running the ECAS in 2024/25.

Explanation and quantification of the main changes in the CHF

In summary, the primary contributors to the change in CHF as discussed in Section 2 of this report are:

- a significant increase in actual and forecast call volumes, arising due to an increase in normal calls for the remainder of the contract period and an increase in silent calls during 2023
- an increase in operating costs as outlined in section 2.1
- a one off sinking fund contribution applied only to FY2024/25

The amount by which each of these contributors affected the CHF is set out in Figure 4.1 below.

⁵ Filename : "ECAS II QMA (OBM format) Q4 2022-23 incl variance formatting Draft No1.xlsx" (provided via email 27th September 2023)

Figure 4.1: Contribution of changes to the new CHF in 2024/25 and 2025/26 [Source: Analysys Mason, 2023]

Item	EUR	Inputs
CHF 2023/24 (EUR)	3.78	
1. Total fixed operating costs (EUR)		[X]
Corresponding volumes (12 Feb 2024 to contract end)		4 927 151
Impact on CHF (EUR)	[X]	
2. Impact due to call volume increase	[X]	
CHF 2025/26 (EUR)	[X]	
3. One-off sinking fund contribution in FY2024/25		[X]
Corresponding volumes (12 Feb 2024 to 2025)		2 405 000
Impact on CHF	[X]	
CHF 2024/25 (EUR)	3.12	

5 Summary

Overall compared to the previous CHF review, total costs over the contract period are slightly higher and there are more calls. The main impact on the CHF is due to this increase in call volumes expected over FY24, FY25 and FY26. Based on the reasonable cost review and updated CHF model, the CHF is calculated at EUR3.12 for the period commencing 12 February 2024 to 11 February 2025, a decrease from the current CHF of EUR3.78.