

Call Handling Fee review 2019



## Assistance to the Commission in conducting its review of the Call Handling Fees of the ECAS operator

ComReg

Ref: 2019-30-PD-ComReg-ECAS 2019



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S.A.S. au capital de 200 000 €  
RCS Paris B 394 948 731

October 10th, 2019

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## 0 Executive summary

The Department of Communications, Climate Action and Environment (“DCCAE”), selected BT Ireland in 2017 as the provider of Emergency Call Answering Service (“ECAS”) in Ireland for a period of 7 years. The new contract was concluded on 12 February 2018 and service provided on foot of this commenced on 1 March 2019.

In order to recover the cost of running the ECAS operation, BT Ireland charges a Call Handling Fee (“CHF”) to operators for emergency calls which originate on their networks.

Section 58D of the Communications Regulation Act requires ComReg to review the CHF and to ensure that the CHF enables BT to recover its costs that are deemed reasonable for the ECAS operation. As such, ComReg has selected TERA Consultants to analyse the operation and expenses related to the current ECAS contract (“ECAS II”) and to evaluate the level CHF required for BT to recoup its reasonable costs.

Beginning on the second anniversary of the conclusion of the contract, the CHF is reviewed each year based on analysis of actual costs incurred and revenues received by the ECAS operator during the year prior to each review:

- Prior to the current ECAS II contract, BT was already in charge of providing the ECAS since 2010 (This prior contract is referred to as “ECAS I”). During the course of this former contract a surplus in the sinking fund, controlled by DCCAE, has accrued.
- Projected call volumes used to calculate the current CHF (as determined by the contract) are lower than actual figures until February 2020 and this will lead to an over recovery of ECAS II operations costs over the current period.
- Call volumes forecasts for the period February 2020 -February 2021 have been adjusted at 2.3m instead of ~~X~~ calls per year.

Considering these main changes, a specific calculation is carried out to set a CHF value that enables BT to recover its costs for the provision of ECAS over the full contract period (including interests and past under/over recoveries). Using this approach, and considering the reasonable costs identified in this report, **TERA Consultants proposes a CHF of €1.77 per call to be applied from February 2020 to February 2021.**

## 1 Introduction

The Emergency Call Answering Service receives all emergency calls (999/112) made in Ireland. The ECAS centres are responsible for forwarding calls to the responsible emergency service, as quickly and effectively as possible.

All emergency calls are free of charge to the caller as required by European Union legislation. In Ireland, ECAS is funded through the Call Handling Fee (“CHF”) payable by network operators present in the country and/or the telephone call service provider. In order to recover the cost of running the ECAS operation, the provider of emergency call answering services charges the CHF to operators for calls which originate on their network.

In 2017 the DCCAIE announced the renewal of BT Ireland’s contract through a public procurement process to provide emergency call answering services on behalf of the state of Ireland. This eventually led to the new contract (ECAS II) commencing on 1 March 2019.

As part of the renewal, several changes were made to the operating model, summarised by:

- Removal of the EastPoint centre, to leave two ECAS centres, in Navan in Co. Meath and Ballyshannon in Co. Donegal.
- BT Ireland providing complete resourcing and management of the ECAS centres in house – this change being fully implemented by 14 April 2018.

This report delivers a review of the key changes in the operational delivery since the renewal of the contract and evaluates the CHF required for BT to recoup its reasonable costs; it is structured as follows:

- Overview of the ECAS operation and recent changes
- Cost review
- Forecasting call volumes to the end of the Concession Agreement
- Calculation of the CHF for the next period.

## 2 Overview of the ECAS operation and recent changes

The renewal of the ECAS contract prompted some changes to the operating model previously in place. BT ended its relationship with Conduit, who had previously provided the frontline staffing resource and its performance management. This led to the closure of the ECAS site in EastPoint Dublin and the processes associated with the resource management being brought in house, under BT's control.

ECAS remains predominantly a call handling service. However, the growing use of eCall initiatives and alternative media / channels, e.g. text messaging services has spread the scope of operations. Therefore, our terminology of 'contact centres' includes telephony and other media. This also anticipates changes that will be introduced by the European Electronic Communications Code.<sup>1</sup>

### 2.1 Operator Performance and Quality Management

Front line Operator performance and quality management was previously undertaken by the third party provider Conduit. This meant that there was some consequential separation between the various responsibilities and accountabilities for key operational components and KPIs. Since moving all staff into BT employment, this no longer obtains.

#### 2.1.1 Operator Recruitment

ECAS procedures seek to ensure Operator quality is embedded from the beginning;

- There are generally three recruitment points across the year, which balances the regular replacement of leavers with a sufficiently sized requirement to make it an efficient and effective process.
- All recruitment is undertaken by BT's established in-house process, with no additional third party costs. Recruitment is done as a single activity that covers both sites.
- There is a three-stage selection process; application / CV assessment, telephone interviews and finally a face to face interview.
- There are no reported issues with attracting sufficient suitable candidates in either location.

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<sup>1</sup> Directive (EU) 2018/1972 establishing the European Electronic Communications Code : "*Emergency communications are a means of communication that includes not only voice communications services, but also SMS, messaging, video or other types of communications, for example real time text, total conversation and relay services.*"

- Classroom training is for two weeks followed by a week of grad-bay with coaching sessions, then they are assigned a buddy to help and mentor until no longer needed. It is estimated that most new starters reach full competency within four weeks of recruitment.

### **2.1.2 Quality Management Framework**

The focus of quality is to achieve call handling accuracy and adherence to the defined process / script.

- There is a documented set of call quality criteria that define the requirement and importance / weighting. This is complemented by a scoring guidance document that describes how each element should be assessed.
- There are 10 classifications of calls, each has its own documented procedure. (see Appendix – Table 1 – Definition of Call Types)
- A minimum of 10 calls are evaluated per advisor per week. The calls are taken from a cross section of the different call classifications. They are scored as correct (100%), correct with coaching error (100%), minor error (95%) or major error (0%) for each of the criteria. Operators are targeted to an average score of 99% per month.
- Call evaluation is completed side by side with the Operator by their Team Leader, to allow for immediate coaching and feedback.
- Comprehensive calibration sessions are held on a regular basis to ensure consistency in scoring and relevance of the quality criteria / call handling processes.
- ‘Check the checker’ activity is undertaken by management on the call evaluations and a weekly audit is prepared and sent to the DCCAE. In addition, the DCCAE undertake their own audit of call quality on a monthly basis.

### **2.1.3 Summary**

The quality management framework is comprehensive, and the review process is robustly applied. This is in keeping with the critical nature of the service provided and matches up to expected industry standards. The success of the process can be shown in the achievement of the 99% weekly target throughout 2019.

## 2.2 Operator Resource Planning

The switch which sees BT employing the frontline operator resource means that BT now owns the end to end resourcing process. Previously BT would provide a staffing requirement to the third party which it would have to provide at a 15 min interval level. The process by which the ECAS calculates the staffing requirement has not changed and has been documented in previous CHF reviews in detail. The outline steps are as follows:

- Historical data from appropriate corresponding weeks is used to construct a call delivery profile across the days of week and time of day. Recent call volume trends are then used to derive the expected call requirement and are applied to the profile.
- Industry standard staffing formula (Erlang) is used to calculate the resource needed by 15 min intervals to achieve service level. This requirement is matched against the scheduled staff, once all non-phone activities are accounted for, with a rule of thumb being a minimum of +2 difference to protect against unplanned reductions in resource.
- Shifts are fixed; therefore building the schedule is an uncomplicated process, planned events and activities including holiday are applied. There is no rotation between day / night working, staff are recruited onto specific day or night shifts, so those working unsociable hours will do so continuously (it carries an hourly rate premium). Shifts are released to staff 6 weeks in advance of being worked.
- Real-time service level performance for the centre and emergency services call taking is monitored in conjunction with staffing to planned levels. Adjustments to scheduled non phone activity can be made where there is a risk to service performance. In cases of significant over delivery of calls to forecast (e.g. due to weather events) then a pool of Operators is held on call and they can be bought into the ECAS centre at short notice.
- As BT now manage the end to end resourcing process, there is more confidence and flexibility against the plan. Periods of forecasted over / under resourcing can be put into context against recent workload trends and management are able to release or bolster resource in advance to better manage service performance in a volatile call delivery environment.
- The resource planning toolset is based in Microsoft Excel, as previously noted in past reviews. Whilst there are workforce planning systems available, the complexity and size of the ECAS operation means they are not critical to effective planning. The Excel based models are still fit for purpose. BT has purchased a WFP tool (a TeleOpti system), but there are currently configuration issues preventing its deployment.

The resource planning process has remained the same since the switch to an in-house provision of Operator resource and is a suitable solution that is performing well. Also, the switch has enabled an increased level of flexibility and pragmatism that was previously more difficult to achieve due to the split responsibilities and accountability. This now means that Operator resourcing has a greater balance between employee satisfaction and service performance, which ultimately has led to an environment that is better enabled to deliver to service level targets.

## 2.3 Overall Feedback & Conclusions

The ECAS service has been operating in a mature state for some time. The switch from third party resourcing to in-house with BT has enabled an additional layer of stability and efficiency. The additional processes taken on by BT appear to have been quickly integrated into BAU activity and, based on the evidence provided, they have improved the operation from both an employee satisfaction and service delivery point of view. Several tangible and non-tangible improvements have been claimed which do not directly impact cost but can be referenced as providing an improved service.

Improvements	Impacts
<ul style="list-style-type: none"> <li>Greater control over staffing quality and suitability</li> <li>Staff on standard BT contracts</li> <li>Improved pay rates and benefits of employment</li> <li>Integrated management of service and staff performance</li> <li>More flexibility of resource during abnormal call levels</li> </ul>	<ul style="list-style-type: none"> <li>Increased employee satisfaction**</li> <li>Lower attrition</li> <li>Lower sickness and absence</li> <li>Staff performance to targets**</li> <li>Staff utilisation**</li> <li>Improved service performance**</li> </ul>

\*\* *Anecdotal*

Two key metrics that in previous reviews were noted as a concern were the levels of attrition and sickness in the frontline Operators. They now compare more favourably to the industry averages shown below, both of which are important guides to the overall health of an operation.

Contact centre metric	Industry average	ECAS 2019
Annual staff turnover (attrition)	Europe 18.0% UK 19.5%	17.5% (projected by end of 2019)
Absenteeism	Europe 7.1% UK 7.1%	12.2% YTD (8.6% last 3 months)

Source: 2019 Dimension Data Global Customer Experience Benchmarking



Based on the above mentioned elements and after examination of the *ECAS II Service Commissioning Report* carried out by Analysis Mason for the DCCAE, TERA Consultants considers that the implementation of the platform supporting ECAS II operations reflects an appropriate process.

### 3 Cost review

The objective of the cost review conducted by TERA Consultants was to ensure that the costs incurred by and expected to be incurred by BT represented only those which are necessary for the efficient provision of ECAS II.

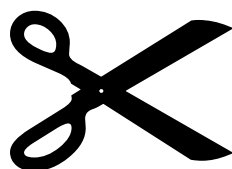
In view of the limited amount of cost data available at this stage of ECAS II operation, TERA Consultants' review focused on a macro level assessment of the cost drivers determining whether the costs incurred by and expected to be incurred by BT were reasonable compared to the previous ECAS contract.

In order to carry out this task, TERA Consultants has been able to rely on the Excel model built by the Department of Communications, Climate Action and Environment ("DCCAE") for ECAS II and populated with information provided by BT. Based on this document, and on previous cost reviews, one can distinguish the main components of BT's ECAS cost base which consists of:

- BT pay costs: for the management of ECAS operation and for the call centre staff.
- BT non pay costs: which include accommodation costs, facilities management, maintenance of fixed assets, network services, etc.
- Depreciation charges of capital costs: for fixed assets and set-up costs.
- Financial costs: which include costs for the Guaranteed Rate of Return, the Section 58D fund (or the Sinking Fund) and past under-recovered costs.

Total ECAS II costs per year are estimated at around €~~X~~ per year ~~X~~

**Figure 1 – Breakdown of BT's main cost components for ECAS II (forecast)**



Source: BT

The cost figures provided by BT are based on the costs incurred during the first months of ECAS II and on forecasts for the remaining part of the contract. Due to the limited scope of actual cost data, this report does not intend to scrutinize each cost factors attributable to ECAS II operations. TERA Consultants suggests carrying out a more thorough cost analysis in subsequent reviews when sufficient relevant data will be

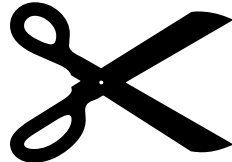
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available. The following sections present the main evolutions between historical data of ECAS I and forecasted data for ECAS II for each of the aforementioned cost components as included in its original bid to the DCCAE.

### 3.1 Depreciation charges of capital costs

Fixed assets and set-up costs are depreciated using straight-line depreciation over the course of the 7-year-contract.

**Figure 2 – comparison of depreciation charges between ECAS I and ECAS II**

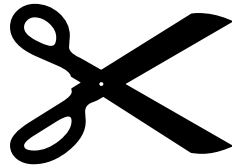


*Source: BT, ComReg*

Due to a lack of information, TERA Consultants cannot speculate on the appropriateness of all the capital costs declared by BT but the total amount appears reasonable compared to ECAS I's infrastructure investments. The steep decline in set-up costs for ECAS II can be explained by the partial reuse of existing tools and processes developed during ECAS I.

### 3.2 BT non pay costs

Figure 3 – comparison of BT non-pay costs between ECAS I and ECAS II

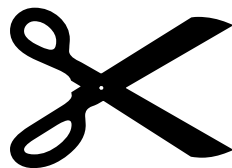


Source: BT, ComReg

The variations in network services cost and maintenance are very likely due to a change of cost categorisation, as they appear to compensate each other. The ✂ increase in other costs is not considered material in the overall cost of ECAS II.

### 3.3 BT pay costs

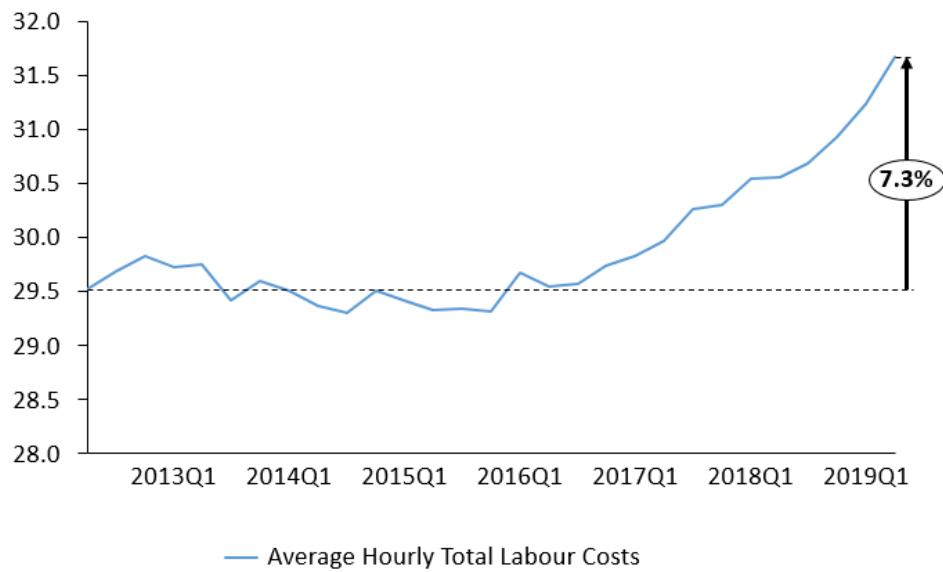
Figure 4 – comparison of BT pay costs between ECAS I and ECAS II



Source: BT, ComReg

BT indicates that its staff costs for ECAS II will be about ✂ higher than during ECAS I. TERA Consultants understands that the number of staff required to operate ECAS II is similar to ECAS I. The increase would thus be only attributable to salary increases between the two periods.

**Figure 5 – Average Hourly Total Labour Costs in Ireland (Seasonally Adjusted) (Euro)**

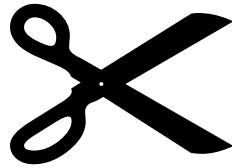


Source: CSO

For matters of comparison, on average the average hourly total Labour Costs for a firm of over 250 employees has shown a 7.3% increase. The ~~X~~ increase may thus be deemed in line with labour cost evolutions between the beginnings of the periods considered.

### 3.4 Financial costs

Figure 6 – comparison of BT financial costs between ECAS I and ECAS II



*Source: BT, ComReg*

The guaranteed return per year is determined by the DCCAE and is beyond the scope of this review.

### 3.5 Cost review summary

Based on a comparison with previous cost reviews carried out by ComReg, the costs borne by BT in operating ECAS since 1 March 2019 and forecasted for the duration of the ECAS II contract appear reasonable and no cost component that could be considered unnecessary, avoidable or excessive has been identified.

## 4 Forecasting call volumes to the end of the Concession Agreement

A key component to calculating the Call Handling Fee is the volume of calls being received by the service, a significant amount of work is done to understand the drivers of calls and how they will affect future volumes. The call demand can essentially be split into two categories: genuine calls (classified as 'Normal' calls in ECAS reporting) that are from members of the public wishing to be connected to an emergency service: and non-genuine calls, which are caused by a variety of factors, with the biggest contributor believed to be technical problems with the network. Whilst the volume of these non-genuine calls has dropped significantly since 2009, they still account for over half of all calls received into the service.

ECAS call volumes are dependent on a number of factors including population, regulation, weather and technology:

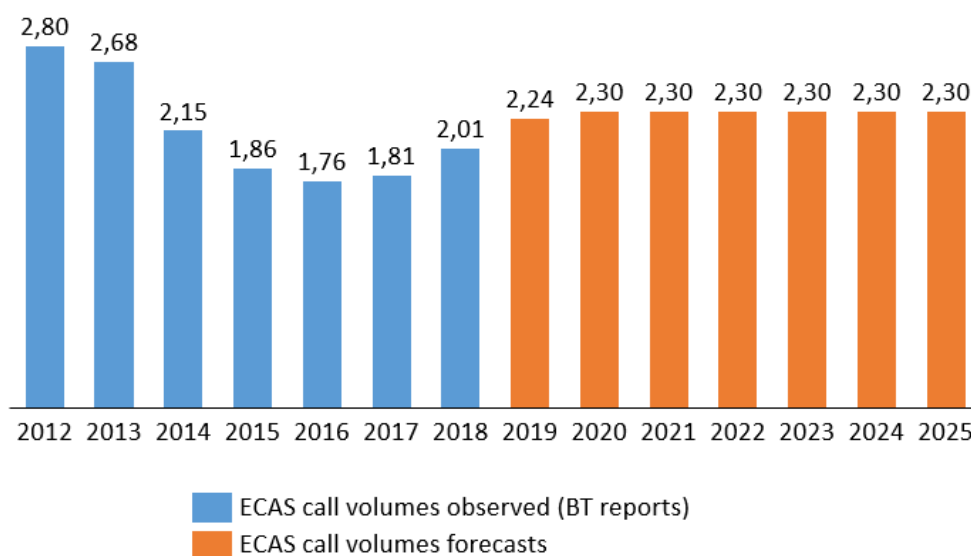
- Population could be considered as a relevant factor underlying call volumes evolution.
- During the course of the ECAS II service contract, one can assume that technology will not be a significant factor given that the platform will remain the same and that no terminal based evolution with regards to the handling of emergency services is foreseen.
- Extreme weather may affect occasionally the volumes when storms or heat waves occur but over a period of several years, the effect on total call volumes should be smoothed out.
- Call volumes could also be affected by the regulation initiatives such as eCall<sup>2</sup>. The in-vehicle eCall is an emergency call generated either manually by the vehicle occupants by pushing a button or automatically via activation of in-vehicle sensors after a crash. Under EU law all new models of cars sold must be equipped with eCall technology. The objective of eCall is to speed up the emergency response time and to provide better location information. It could also marginally increase the reach of potential persons in need and as such drive a slight increase in call volumes. However, the penetration rate of eCall-equipped vehicles in the Irish market will likely remain low during the period considered.

TERA Consultants' forecasts are based on BT's actual call volume reports between March and August 2019, on BT's forecast for the remaining months of 2019 and on the assumption that call volumes will remain stable in the long term. It is estimated that annual call volumes for ECAS services will amount to 2.3m in 2020/21.

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<sup>2</sup> Regulation (EU) 2015/758 of the European Parliament and of the Council of 29 April 2015 concerning type-approval requirements for the deployment of the eCall in-vehicle system based on the 112 service and amending Directive 2007/46/EC : <https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32015R0758&from=EN>

**Figure 7 – ECAS Call Volumes (in millions)**



Source: BT

## 5 Calculation of the CHF for the period 12 February 2020 to 11 February 2021

The calculation of the CHF to be set for the period 12 February 2020 to 11 February 2021 reflect the following changes:

- Effect of the surplus from ECAS I sinking fund: during the course of ECAS I a surplus in the sinking fund, controlled by DCCAE, has accrued.
- Effect of the over recovery of ECAS II operations costs over the current period: Projected call volumes that have been used to calculate the current CHF are lower than actual figures and will lead to an over recovery of ECAS II operations costs over the current period.
- Effect of the adjusted call volumes projection over the period 12 February 2020 to 11 February 2021: call volumes for the period February 2020 -February 2021 are estimated at 2.3m instead of ~~X~~ calls per year.

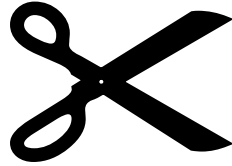
Monthly contributions to the sinking fund during the ECAS I operation led to the accumulation of ~~€~~ credit which will be deducted from the annual costs incurred during



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the period 12 February 2020 to 11 February 2021. On a per call basis this leads to a ~~€~~ reduction in the CHF.

**Figure 8 – Effect of the over recovery of ECAS II operations costs over the current period**

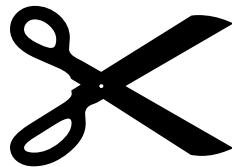


*Source: BT, ComReg*

The reports provided by BT show that call volumes measured on the ECAS II platform greatly exceeded the call volumes used to set current CHF and led to accumulated revenues ~~€~~ higher than expected. On a per call basis this leads to a ~~€~~ reduction in the CHF.

The adjustment of call volumes for the period 12 February 2020 to 11 February 2021 implies ~~€~~ extra calls which would translate into ~~€~~ extra revenues if the CHF was maintained at €3.93.

**Figure 9 – CHF calculation summary**



*Source: TERA Consultants analysis*

Under consideration of the above mentioned effects on the CHF, TERA Consultants proposes a CHF of **€1.77** per call to be applied from February 2020 to February 2021.

## 6 Appendix

**Table 1 - Definitions of call types**

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

Source: BT Ireland