



Case T-060

Guidance on the provision of a  
public emergency call service

Response to consultation and final  
Guidance

Document No: JCRA 22/25

Publication date: 30 June 2022

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# 1 Overview and summary

- 1.1 Being able to contact the Emergency Services (**ES**) by dialling either 999 or 112 is critical for the safety and security of Islanders and visitors. The availability and reliability of this Public Emergency Call Service (**PECS**) is of paramount importance to the Jersey Competition Regulatory Authority (the **Authority**), which is responsible for licensing telecoms operators required to provide the service.
- 1.2 Following several incidents leading to PECS loss early in 2020, the Authority investigated causes and determined actions needed to minimise future reoccurrences. A resulting formal direction<sup>1</sup> issued on the matter included a commitment to provide licensed operators (**LOs**) with guidance on the provision of a PECS (the **Guidance**).
- 1.3 On 9 December 2021, the Authority issued proposed ‘Guidance on the Provision of a Public Emergency Call Service’ for non-statutory consultation<sup>2</sup>, which closed on 7 February 2022. Having carefully considered responses received, the Authority has amended the proposed Guidance where it considers necessary, with Annex A of this document containing a marked-up version showing changes to be incorporated in the final Guidance.
- 1.4 Having consulted, the Guidance published in this document is considered final and current. A ‘clean’ version is accessible on the Authority’s website or available on request. Any subsequently proposed amendments will be made through a similar non-statutory consultation process before being adopted by the Authority.

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<sup>1</sup> JCRA document No: JCRA 20/27: Emergency call service outages in Jersey during early 2020: a decision to give a Direction to each of JT (Jersey) Limited and Sure (Jersey) Limited

<sup>2</sup> JCRA document number JCRA 21/53: Guidance on the provision of a public emergency call service: Proposals for consultation

## 2 Introduction and background

2.1 This section provides summary information on the consultation and proposed Guidance. Its contents are:

- Background to consultation
- Purpose and scope of proposed Guidance
- Consultation responses received

### Background to consultation

2.2 Being able to communicate with the ES through a dedicated telephone number is a firmly-established principle. Given the potentially life-threatening consequences associated with ES calls, the availability and reliability of the Island's PECS is of paramount importance to the Authority.

2.3 The obligation for Class II and Class III LOs to provide a PECS is contained in Licence Conditions (LC) 14.1 and 14.2, which require each operator to provide an 'end-to-end' service, with responsibility for ensuring its users are able to communicate free of charge with the relevant ES so as to the ES of an emergency.

2.4 Class III LOs have a further licence obligation contained in LC 14.3, which is to make emergency call services available to other LOs. This is presently addressed by Class III LO JT (Jersey) Limited through its Emergency Services Access Service (ESAS) available to other LOs through that company's Reference Interconnect Offer (RIO) and which has historically provided and presently provides the emergency Call Handling Agent (CHA) function described within the Guidance.

2.5 During 2020, and subsequently, the Jersey PECS failed on several occasions, at times leaving users unable to access the ES for a prolonged period. The Authority's subsequent investigation led to a direction being issued<sup>3</sup> that referenced the Authority's intention to establish common PECS expectations for LOs, including putting in place appropriate procedures and business practices, conducting appropriate risk and business continuity assessments, collecting and making available reports on call volume and waiting time data and reporting outages or interruption of the emergency call service. The direction further established key performance indicators (KPIs) in relation to any CHA function.

2.6 In connection with the direction, the Authority committed to issuing guidance to all LOs setting out the Authority's view on the minimum standards associated with providing a PECS.

### Purpose and scope of proposed Guidance

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<sup>3</sup> JCRA Document No: JCRA 20/27: Emergency call service outages in Jersey during early 2020: a decision to give a Direction to each of JT (Jersey) Limited and Sure (Jersey) Limited

- 2.7 The purpose of the proposed Guidance is to provide LOs with important supplemental information to ensure the requirements associated with LC 14 are fully understood. Although the Guidance is not legally binding, it may be taken into account should the Authority need to investigate and evaluate the cause and impact of any PECS incidents and during any subsequent licence condition enforcement actions.
- 2.8 The Guidance's scope encompasses operator network resilience, VoIP considerations, CHA function, service management and development, service monitoring and service incident reporting. It does include all elements and activities associated with the PECS, but focuses on those most closely associated with ensuring successful emergency service call initiation, transmission, receipt and answering by the CHA.
- 2.9 Requirements or recommendations on other aspects of the PECS may be issued as a code of practice or similar by Justice and Home Affairs, the Government of Jersey department responsible for providing ES in the Island, which the Authority has worked closely with in developing the proposed Guidance.

### Consultation approach and responses received

- 2.10 On 9 December 2021, the Authority issued proposed Guidance on the Provision of a Public Emergency Call Service for consultation<sup>4</sup>, with respondents asked to consider two broad questions:

Question 1: Do you have any comments on proposals to issue Guidance on the provision of a Public Emergency Call Service?

Question 2: Do you have any comments on the proposed Guidance on the provision of a Public Emergency Call Service as set out in this document?

- 2.11 The consultation closed on 7 February 2022, with responses<sup>5</sup> received by that date or later with exceptional agreement from the following organisations:

- Jersey Airtel Limited (**Airtel**)
- Justice and Home Affairs department of the Government of Jersey (**JHA**)
- JT (Jersey) Limited (**JT**)
- Newtel Limited (**Newtel**)
- Sure (Jersey) Limited (**Sure**)

- 2.12 The Authority is grateful to all respondents for the time and care taken to provide comments and views on this important subject. Having carefully considered them, this document contains

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<sup>44</sup> Document JCRA 21/53

<sup>5</sup> Non-confidential versions of responses are published on the Authority's website alongside this document.

the Authority's analysis of responses and conclusions drawn from each, and final Guidance incorporating amendments accepted as necessary. This final Guidance is considered current from its date of publication and may be taken into account by the Authority when investigating and evaluating the cause and impact of any subsequent PECS incidents.

### 3 Consideration of responses to consultation

3.1 This section contains details on responses received to the consultation, information on how the Authority has analysed them and conclusions drawn. Its contents are:

- [General principles applied when considering all responses](#)
- [Specific consideration of responses to consultation Question 1](#)
- [Specific consideration of responses to consultation Question 2](#)

#### **General principles applied when considering all responses**

3.2 While individual specific responses have been carefully examined, the Authority has applied the following general principles when considering and analysing each to draw its conclusions:

- (a) That the safety and security of Islanders and visitors is considered of paramount importance, and takes priority within the Authority's analysis and conclusions unless valid commercial, technical and operational constraints exist to limit a LO's ability to provide the high quality PECS expected.
- (b) That providing a high quality end-to-end PECS may require constructive dialogue and harmonious cooperation between LOs and with the ES when creating, providing and managing inter-operator connectivity and services, which the Authority assumes will be all LOs' default position.
- (c) That LOs know best how to go about providing a high quality PECS, and can do so without the Authority needing to provide overly prescriptive or technically definitive statements on expectations unless strictly required.

#### **Consideration of responses to consultation Question 1**

Question 1: Do you have any comments on proposals to issue Guidance on the provision of a Public Emergency Call Service?

#### **General response to proposed Guidance: Airtel**

3.3 Airtel welcomes the consultation and proposed Guidance.

#### **General response to proposed Guidance: JHA**

3.4 JHA welcomes the consultation and offers its full support for the proposed Guidance, noting that it will help enable ongoing work to proactively implement its own PECS code of practice.

#### **General response to proposed Guidance: JT**

- 3.5 JT welcomes the proposal to provide Guidance, noting its longstanding involvement in providing a PECS in Jersey, particularly through its provision of the Island's CHA function both for its users and those of other LOs.
- 3.6 JT further explains discussions presently taking place with JHA on potential future arrangements for the Island's CHA function. In view of this, JT suggests delaying the formalisation of Guidance until negotiations and any subsequent implementation are complete.

### **Analysis**

- 3.7 The Authority welcomes JT's overall support, appreciates its long-term involvement in Jersey's PECS and notes the present engagement with JHA on potential future CHA provision.
- 3.8 Considering JT's suggested delay to formalising the Guidance in view of this engagement, the Authority takes the following points into account:
- (a) That engagement between JT and JHA is presently at discussion level, rather than decision and implementation, with the latter at least 12-18 months in the future; and
  - (b) That JHA supports the proposed Guidance (see section 3.4 above), noting it will provide a governance framework enabling present work to implement a code of practice.
- 3.9 In view of these points, and general principle (a) stated in section 3.2 above, the Authority is against any delay in formalising the proposed Guidance, which provides important information and focus to LOs providing a PECS.
- 3.10 The Authority acknowledges, however, that any issued Guidance may be reconsidered and potentially amended in the future should JT and JHA reach agreement on changing CHA function provision in Jersey.

### **Conclusion**

- 3.11 The Authority will proceed with issuing the Guidance.

### **General response to proposed Guidance: Sure**

- 3.12 While welcoming the proposed Guidance, Sure requests the Authority provides further clarity in two specific areas:
- (1) How responsible a LO is for loss of PECS when the incident leading to the loss was caused by a local third-party network outage; and
  - (2) On the ability of one LO to negotiate contracts with another for the provision of PECS-related services.

### **Authority analysis**

- 3.13 The Authority believes that Sure's two points for clarification are interrelated, and so will consider them jointly.



- 3.14 First, and as noted by Sure, the question of responsibility for PECS loss when a third-party network is involved was examined in detail and, the Authority believes, conclusively addressed within the decision and direction that followed the emergency call service outages in Jersey during 2020<sup>6</sup>. As a result, the Authority reminds Sure that LC 14 obliges LOs to provide its customers, and be overall responsible for the availability of, an end-to-end PECS.
- 3.15 Second, the Authority also reminds Sure, and any LO, that in principle they can avoid involving third-parties in the provision of a PECS by choosing to provide their own end-to-end service, and that choosing to outsource or contract out all or any part of the PECS to a third-party does not release the LO from its LC obligations.
- 3.16 However, the Authority further appreciates that for technical, commercial, historic or other reasons most LOs may choose outsourced or contracted arrangements to provide an end-to-end PECS, which does create some complexity in assuring service levels or attributing responsibilities in the event of a service loss or degradation. For this reason, the Authority will explore several potential third-party PECS involvement scenarios as a means of providing Sure and other LOs with greater clarity on the Guidance expectations:
- (a) LO A chooses to outsource any or all elements of its own operator network associated with PECS calls to a third-party that may or may not be another LO - outsourced network operations centre for example. In this scenario:
    - i. Responsibility for the PECS remains solely with LO A, which should have sufficient levels of contractual control over third parties to ensure continued compliance with LC obligations and the expectations set-out in the Guidance.*
  - (b) LO A enters into an interconnect arrangement with LO B which provides transit for PECS calls towards the ES – using an interconnect service contained in JT’s RIO for example. In this scenario:
    - i. Overall responsibility for the PECS remains with LO A; and*
    - ii. LO A has specific responsibility for ensuring its network equipment and systems, operational procedures, etc., associated with interconnection arrangements meet the reliability and resilience expectation set out in the Guidance; and*
    - iii. LO A should further satisfy itself that LO B’s interconnect product and arrangements provide the level of reliability and resilience expected by the Guidance, and that contractual arrangements in the form of a RIO or similar are sufficiently well-formed and delivered by LO B to provide the required service level assurance, taking into account LO B is required by the Guidance to provide enhanced measures to ensure*

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<sup>6</sup> JCRA Document No: JCRA 20/27: Emergency call service outages in Jersey during early 2020: a decision to give a Direction to each of JT (Jersey) Limited and Sure (Jersey) Limited

*uninterrupted access through effective design, building and maintaining of any element associated with ES calls; and*

*iv. LO A is further responsible for monitoring performance of the interconnect service with LO B to the extent it is reasonably and technically able to do so, reporting faults and concerns it detects and responding to faults or concerns reported to it by LO B, reporting any service incidents in line with expectations established in the Guidance.*

(c) LO A enters into an agreement with LO B for the provision of a CHA function - using the ESAS contained in JT's RIO for example. In this scenario:

*I. Overall responsibility for the PECS remains with LO A; and*

*II. LO A should satisfy itself that LO B's CHA function provides the level of reliability and resilience expected by the Guidance, which following its issuing will be monitored by the Authority through periodic service and incident reporting.*

(d) LO A provides its customer with a telecoms service using the wholesale services of LO B that include a PECS – using JT's Wholesale Line Rental (WLR) service for example. In this scenario:

*I. Overall responsibility for the PECS remains with LO A; and*

*II. LO B is responsible for the technical provision of the PECS to a level of reliability and resilience expected by the Guidance, and for reporting service incidents in the same fashion; and*

*III. LO A is responsible for communicating the PECS availability to its customers and receiving and investigating any faults reported by the customer saying they cannot use the PECS or similar.*

### **Authority conclusions**

3.17 For the avoidance of doubt, the Authority ultimately reserves the right to determine responsibility for PECS loss following an investigation, which it may choose to undertake depending on circumstances at the time, and which might find more than one LO responsible and accountable.

3.18 However, taking into account the potential complexities arising when third-parties are involved in providing a PECS, the Authority will amend section 3.9 of the proposed Guidance to:

*Licensed operators may decide to outsource to third parties some or all of their elements of the operator network associated with ES calls. In this case, sufficient levels of contractual control over third parties should be in place to ensure continued compliance with licence condition obligations and the expectations set-out in this Guidance.*

3.19 And section 3.16 of the proposed Guidance to:

*Given the complexities involved in providing a CHA function we recognise that licensed operators may choose to contract another licensed operator or competent agency to provide this service on their behalf. In this case, we remind the originating licensed operator that they remain responsible for ensuring reliable and resilient interconnect arrangements to a level established by the expectations of this Guidance are in place to provide for assured emergency calls continuity and, as part of the arrangements, are able to satisfy themselves that the CHA function is being performed according to the expectations set out in this Guidance.*

3.20 No further proposed Guidance amendments required.

#### Specific response(s) to proposed Guidance: Section 2.9

2.9 The requirement for Class III licensed operators to provide emergency call services available to other licensed operators is contained in Licence Condition 14.3. This supports expectations set-out within this Guidance for the provision of an emergency Call Handling Agent (CHA) function. This requirement is set out in License Condition 14, which states:

14.3 The Licensee shall make such emergency call services available, at reasonable cost, to other Licensed Operators within the Bailiwick of Jersey.

3.21 Newtel questions whether LC 14.3 is being added to the licences of all LOs, requested definition on what is meant by the term 'reasonable cost' and definition on the 'scope of interop/interconnect'.

#### **Authority analysis**

3.22 The Authority reminds that only Class III licences contain LC 14.3, and that the consultation relates only to the proposed Guidance and not licences, which are unchanged.

3.23 The Authority is not clear what definition is required for the 'scope of interop/interconnect', but refers to sections 3.13 to 3.20 above as a possible source of clarification.

#### **Authority conclusion(s)**

3.24 No specific proposed Guidance amendments required.

#### Specific response(s) received to proposed Guidance: Section 2.12

2.12 The Authority's investigation led to a direction being issued that proposed establishing key performance indicators (KPIs) in relation to all licensed operators that they:

(a) Maintain network availability such that in any given calendar month the service will be available at least 99.999% of the time.

(b) Provide, or secure, CHA services such that in any 24-hour period, 99% of incoming calls wait less than five seconds before being answered.

3.25 Newtel questions how the service availability in this section was calculated.

**Authority analysis**

3.26 The Authority reminds that the information in this section is taken from its direction to Sure and JT following the 2020 PECS failures<sup>7</sup> and provided for context, with the proposed Guidance addressing this subject in more detail.

**Authority conclusion(s)**

3.27 No specific proposed Guidance amendments required.

**Specific Response(s) received: Section 2.19**

2.19 To fully meet this purpose, the scope of the proposed Guidance includes:

(a) Access network resilience: sets general expectations on providing users with assured PECS access through focus on ensuring all network and systems carrying emergency calls are designed, built and maintained to the highest reasonable standard.

(b) VoIP considerations: draws attention to potential PECS limitations when provided using a voice over IP (VoIP) service.

3.28 Referring to section 2.19 (a), Newtel asks for further definition on what is meant by the terms 'highest reasonable standard' and 'assured'.

3.29 Referring to section 2.19 (b), Newtel questions why it should have limitation given its calls are based on VoIP, and notes that there seems to be a conflict with section 2.19 (a). Newtel further questions whether companies / applications such as WhatsApp and MS Teams need to comply with this section.

**Authority analysis**

3.30 On the request for further definition on the terms used in the proposed Guidance, the Authority refers to general principles (a) and (c) stated in section 3.2 above, and that LOs must be prepared to justify decisions made on what represents 'highest reasonable standard' and 'assured' should the Authority need to investigate and determine responsibility for any future PECS loss.

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<sup>7</sup> JCRA Document No: JCRA 20/27: Emergency call service outages in Jersey during early 2020: a decision to give a Direction to each of JT (Jersey) Limited and Sure (Jersey) Limited

3.31 Considering Newtel's question on VoIP calls, the Authority reminds that the LC obligation to provide an end-to-end PECS exists regardless of network or service technology, and that it only applies to operators holding a local Class II or Class III licence.

**Authority conclusion(s)**

3.32 No specific proposed Guidance amendments required.

**Responses to consultation Question 2**

Question 2: Do you have any comments on the proposed Guidance on the provision of a Public Emergency Call Service as set out in this document?

**Specific Response(s) received: Section 4.3**

4.3 Class III licence holders are further required to make emergency call services available to other licensed operators, with an ability to charge reasonable fees. This obligation is met through the provision of an Emergency Call Handling Agent (CHA) function, which promptly answers 112 or 999 calls and routes them to the appropriate ES.

3.33 JT proposes a change to this section, making it clear that the requirement to make emergency call services available to LOs does not require JT to provide the CHA function and JT could decline if an alternative CHA was provided.

3.34 JT supports this proposal through drawing attention to arrangements in other relatable jurisdictions where the ES operate the CHA function, and specifically to Guernsey where the incumbent operator has relinquished its role as CHA function provider.

**Authority analysis**

3.35 Having carefully considered JT's response and points and more fully examined the emergency call services JT offers to other LOs through its RIO, the Authority accepts a need to clarify the Guidance statement to better reflect present CHA arrangements and will make required amendments.

3.36 Responding to JT's specific proposal to clarify the requirement to provide a CHA to other LOs and to reflect the possibility of responsibility for the CHA function moving to JHA at some future point, the Authority believes the planned amend noted in section 3.33 above will sufficiently address the question of responsibility, while the analysis provided in section 3.10 above, which notes the Guidance may be reconsidered and potentially amended in the future, addresses the possibility of any future CHA arrangements should agreement with JHA be reached.

**Authority conclusion(s)**

3.37 The Authority will amend section 1.3 of the proposed Guidance to:

*Class III LOs have a further licence obligation contained in LC 14.3, which is to make emergency call services available to other LOs. This is presently addressed by Class III LO JT (Jersey) Limited through its Emergency Services Access Service (ESAS) available to other LOs through that company's Reference Interconnect Offer (RIO) and which has historically provided and presently provides the emergency Call Handling Agent (CHA) function described within the Guidance.*

3.38 No further proposed Guidance amendments required.

#### Specific response(s) to Section 5.4

5.4 The requirement for Class II and Class III licensed operators to take all reasonable steps to ensure network integrity is contained in Licence Condition 9, which supports expectations set out within this Guidance to ensure PECS resilience and reliability .

3.39 JT questions the reference to LC 9 in connection to the Guidance, stating that this condition does not relate to general network resilience and reliability, but to network integrity in a more narrowly defined scenario involving damage or interference by users.

#### **Authority analysis**

3.40 The Authority disagrees with JT's point, finding that LC 9 obliges licensees to ensure the integrity, which it takes to mean 'the quality of being whole and complete', of their networks, and therefore resilient and reliable in a broader sense than just occasions involving damage or interference by users. This is consistent with the Authority's determinations as regards the interpretation of LC 9 in relation to outages or partial outages of JT's network on 12 July 2020<sup>8</sup> and 28 July 2021<sup>9</sup>.

#### **Authority conclusion(s)**

3.41 No specific proposed Guidance amendments required.

#### Specific response(s) to Overarching principles (section 6.2 – 6.5)

6.2 Given the potentially life-threatening or personal security-related consequences involved, Islanders and visitors should have access to a reliable and high-standard PECS comparable to that available in other relevant jurisdictions.

6.3 While the end-to-end process of providing a complete local emergency service relies on several separate and distinct activities that may be undertaken by different organisations, licensed operators should recognise they have a pivotal role in achieving the reliability and

<sup>8</sup> Case T-027, see Document JCRA 21/38, Decision and Directions to JT

<sup>9</sup> Case T-046, see Document JCRA 22/34

high-standard expected and should focus every reasonable effort towards designing, developing, maintaining and managing the networks, systems, people and processes needed to connect users with the ES.

6.4 Licensed operators should further monitor network and service elements used to convey emergency calls and be able to report on reliability and detect loss of service incidents, which should be reported to the Authority and may be investigated.

6.5 Additional to this Guidance, licensed operators should be aware of and aim to comply with any requests, instructions, code of practice or similar issued by JHA in connection with providing a local PECS to the expected standard.

3.42 JT highlights that the proposed Guidance refers to other relevant jurisdictions and asks for clarity on which are considered relevant, suggesting other Crown Dependencies for example.

3.43 JT requests Authority add the word 'reasonable' when complying with any requests, instructions, code of practice or similar issued by JHA.

#### **Authority analysis**

3.44 The Authority appreciates JT's point on specifying 'other relevant jurisdictions', but is against both in view of general principle (c) stated in section 3.2 above and because what appears an appropriate and relevant example at time of issuing the Guidance may not be so in the future. Broadly, the Authority suggests LOs could consider the standards and approach taken by reputable jurisdictions that Islanders may be more familiar with.

3.45 The Authority accepts JT's point on amending section 6.5 to include 'reasonable' and will amend the proposed Guidance in response, while reminding JT and other LOs of the paramount importance of the PECS in ensuring the safety and security of Islanders and visitors.

#### **Authority conclusion(s)**

3.46 The Authority will amend section 3.5 of the proposed Guidance to:

*Additional to this Guidance, licensed operators should be aware of and aim to comply with any reasonable requests, instructions, code of practice or similar issued by JHA in connection with providing a local PECS to the expected standard.*

3.47 No further proposed Guidance amendments required.

#### **Specific response(s) to Access network resilience (sections 6.6 – 6.9)**

6.6 Licensed operators should ensure their networks and services are generally reliable and resilient with extra attention given to network and service elements use to convey calls to the ES.

- 6.7 Given the critical nature of ES calls, licensed operators should take enhanced measures to ensure uninterrupted access through effective design, building and maintaining of any element associated with ES calls. These include but are not limited to network infrastructure, systems, buildings, power, processes and people. We recognise that various industry standards exist to establish best practice in some of these areas and commitment to and compliance with such standards is always to be encouraged.
- 6.8 Particular attention should be taken to avoid single points of failure associated with any elements carrying ES calls where it is reasonably possible to do so. Concessions to this may be where geographical or physical constraints exist or where doing so may be disproportionately expensive.
- 6.9 Licensed operators may decide to outsource to third parties some or all of their elements associated with ES calls. In this case, sufficient levels of contractual control over third parties should be in place to ensure continued compliance with licence condition obligations and the expectations set-out in this Guidance.

3.48 Airtel notes that its network equipment serving normal and emergency calls is the same, but that it devotes extra attention to the monitoring of 999 calls.

3.49 JT raises point that the term ‘access network resilience’ may have different meanings in fixed and mobile contexts, and that changing to ‘operator network resilience’ will better reflect meaning in the Guidance.

3.50 JT further asks for more clarification on what is meant by the term ‘enhanced measures’, especially in the context of providing resilience to an end user level connected to fixed and mobile networks.

#### **Authority analysis**

3.51 The Authority welcomes Airtel’s clarification on its approach to ensuring network resilience.

3.52 Considering JT’s point on the term ‘access network resilience’, the Authority accepts that the term ‘access network’ may have a more narrow meaning in certain contexts than intended for the Guidance, and that ‘operator network resilience’ is more suitable. The Authority will amend the Guidance accordingly, noting for the avoidance of doubt that the term ‘operator network’ encompasses any organisational structures, operational processes, networks and systems, both fixed and mobile, associated with providing a PECS.

3.53 The Authority appreciates JT’s request for more clarification on the term ‘enhanced measures’ in the context of providing resilience to an end user level. In response, the Authority first draws attention to its general principle (c) stated in section 3.2, reminding JT and other LOs that they should determine what represents ‘enhanced measures’ based on an appreciation of what would reasonably represent best industry practice on the level of resilience required taking into



account geographical or physical constraints. Second, and for clarity, the Authority welcomes and finds reasonable JT's views on the 'enhanced measures' it presently takes to protect individual connections for fixed and mobile users, and then progressive levels of resilience incorporated as individual connections are aggregated within core network components.

#### **Authority conclusion(s)**

3.54 The Authority will amend the second sub-heading in the proposed Guidance to state 'Operator network resilience' instead of 'Access network resilience'.

3.55 No further proposed Guidance amendments required.

#### **Specific response(s) to VoIP considerations (sections 6.10 – 6.11)**

6.10 Licensed operators providing services over broadband connections using Voice over IP (VoIP) technology should take into account the impact of power cuts on a user's ability to make ES calls.

6.11 Attention is also drawn to ensuring ES calls made using any VoIP service in Jersey are correctly routed to Jersey's ES.

3.56 JT points out that its landline network uses VoIP technology and describes steps taken to mitigate the risks to vulnerable customers in the event of a power cut, stating an assumption that these measures are sufficient.

3.57 Referring to section 6.11, JT further highlights that responsibility for routing calls to the Jersey's ES rests with the originating provider, which may be using an 'over the top' application such as MS teams or Skype and therefore not visible to JT. JT further notes that local Class I operators may be providing VoIP services without access to the ES, a matter that could be considered within the Guidance.

3.58 Newtel requests an explanation on how LOs should overcome power outages with regard to ES calls and clarification on whether the Guidance applies to companies such as Whatsapp, Messenger, MS Teams, etc.

#### **Authority analysis**

3.59 The Authority welcomes JT's elaboration on efforts made to protect vulnerable users during power cuts, and concurs these align with previous agreements made on the subject.

3.60 Responding to Newtel's request for clarification on what LOs can do to overcome power outages, the Authority refers to the proposed Guidance which notes that certain VoIP services may be compromised in power loss situations and in this case LOs should consider the impact on customers who may not be able to call the ES, and take steps they believe necessary and appropriate to mitigate individual customer risk.

- 3.61 Addressing both JT's and Newtel's points / questions on Over-the-Top VoIP providers, the Authority agrees that responsibility for providing ES calls in these scenarios rests with the VoIP provider, whether locally licensed or not.
- 3.62 In general, the Authority is aware that the broad telecoms industry move towards all VoIP networks and services, along with the increasing prevalence of 'Over-the-Top' services, requires further more detailed regulatory consideration in due course, with the potential for further specific guidance issued to ensure continued safety and security of Islanders and visitors.

**Authority conclusion(s)**

- 3.63 No specific proposed Guidance amendments required.

**Specific response(s) to Section CHA function (sections 6.12 – 6.17)**

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| <p>6.12 We would expect licensed operators providing a CHA function to establish appropriately enhanced organisational structures, operational processes, networks and systems and that these are continually monitored and managed to ensure that they remain effective. There should also be close liaison and understanding with JHA to ensure staff and management associated with the CHA are meeting expressed responsibilities.</p> <p>6.13 Given the safety of life implications associated with emergency calls, we expect licensed operators providing an CHA function to achieve the following KPIs:</p> <ul style="list-style-type: none"> <li>• Service availability: the CHA function should be designed and managed to remain operational (in that incoming calls can be answered at any level of performance) 99.999% of the time ('five nines' availability), measured on a monthly basis . Such availability encompasses all elements of the CHA function including systems, networks and personnel. This target complements the call answer time performance criterion below, where we would expect a strict constraint on the allowable degradation of service that can occur.</li> <li>• Service performance: in conjunction with the service availability expectations stated above we would expect that 95% of calls made to 999 or 112 that are received into CHA call queues will be answered within 5 seconds, as measured over a 24-hour period (midnight to midnight). Any calls abandoned by the caller without answer within 5 seconds need not be included though should be noted.</li> </ul> <p>6.14 We accept there may be occasions when achieving these KPIs is not possible due to exceptional circumstances, including but not limited to:</p> <ul style="list-style-type: none"> <li>• Major site loss or damage;</li> <li>• Unavoidable unscheduled staff evacuations;</li> </ul> |
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- Wide-scale staffing challenges caused by unpredictable Island-wide issues;
- Severely disrupting weather events; and
- Unforeseen major local incident.

6.15 Notwithstanding this, we expect licensed operators to take all reasonable steps to avoid or minimise the risk of exceptional circumstances affecting their ability to provide the EOS function and have arrangements in place to rapidly restore services should they occur.

6.16 Given the complexities involved in providing an CHA function we recognise that licensed operators may choose to contract another licensed operator or competent agency to provide this service on their behalf. In this case, we remind the originating licensed operator that they remain responsible for ensuring reliable and resilient interconnect arrangements are in place to provide for assured emergency calls continuity and, as part of the arrangements, are able to satisfy themselves that the CHA function is being performed according to the expectations set out in this Guidance.

6.17 Given the critical nature of the service, however, in the event a licensed operator chooses to outsource their CHA function responsibilities to another licensed operator or competent agency, they should only do so to one evaluated and approved by JHA.

3.64 Airtel agrees with complexities involved in handling a CHA function, suggesting that a common CHA could exist for all LOs, and further proposes that JT should provide more information on the operation of its CHA function.

3.65 Noting that it believes the term 'JHA' should read 'CHA', JT first refers to section 6.12 and explains that it provides a CHA function for historic reasons and not because of a specific LC obligation, and that in future it may meet regulatory obligations through an alternative approach. JT further explains its present arrangement with other LOs to provide a CHA, noting where it believes present responsibilities lie for service reliability and where measurement of any KPI should take place.

3.66 Referring specifically to section 6.13, JT agrees with the CHA function service availability and response times stated in the Guidance, noting the Authority's acceptance these may be unachievable in certain exceptional circumstances.

3.67 Referring specifically to section 6.15, JT believes the term 'EOS' should read 'ES'.

3.68 Referring specifically to section 6.16, JT explains its views on the provision of a CHA function through contract with other licensed operator or competent agency, noting broadly that this section may not be necessary in a potential future scenario in which JHA provides the CHA function.

3.69 Newtel asks for an explanation on how stated CHA availability is achievable taking into account outages operators may experience.

#### **Authority analysis**

3.70 The Authority appreciates and notes Airtel's points on a common CHA, but reminds this is outside the scope of the Guidance.

3.71 The Authority agrees with JT's points on the terms 'JHA' and 'EOS' used in this section and will amend the final Guidance to reflect.

3.72 Considering JT's points on section 6.12 relating to the historic and present situation with the CHA function, the Authority refers to section 3.33 above, which it believes better clarifies JT's involvement and section 3.34 which addresses possible future arrangements. The Authority further welcomes the 'JT 999 Responsibility and SLA Measurement' diagram, which broadly reflects its view on responsibility and KPI measurement, although the Authority notes that as a non-licensed entity, the ES falls outside of its remit and therefore KPIs relating to its call answering performance during a disaster recovery / planned works scenario are agreed between JT and the ES.

3.73 Considering JT's points on section 6.13, the Authority welcomes JT's agreement, and accepts and will amend section 6.15 of the Guidance to reflect JT's point that 'EOS' should read 'ES'.

3.74 Considering JT's points on section 6.16, the Authority disagrees with the specific assertion that providing a CHA is not within an LO's obligation. As stated in its Direction to JT and Sure following PECS failures in 2020<sup>10</sup>, LC 14.1 obliges LOs to provide an end-to-end service between the user and the ES<sup>11</sup> that includes delivering or purchasing CHA call handling<sup>12</sup>. However, the Authority appreciates the broader point being made by JT on the possibility of some future arrangement by which the CHA function becomes JHA's responsibility, which it agrees may require a review of the present relevant licence condition and the Guidance.

3.75 On Newtel's request for an explanation of achieving 99.999% availability, the Authority reminds this relates to the CHA function, which should be designed to ensure it is not affected by operator outages. However, the Authority further reminds that LOs should ensure their networks and services are generally reliable and resilient with extra attention given to network and service elements used to convey calls to the ES.

#### **Authority conclusion(s)**

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<sup>10</sup> JCRA Document No: JCRA 20/27: Emergency call service outages in Jersey during early 2020: a decision to give a Direction to each of JT (Jersey) Limited and Sure (Jersey) Limited

<sup>11</sup> Section 5.10 (end-to-end) and

<sup>12</sup> Section 4.7

- 3.76 Amend the fourth sub-heading in Section 3 to read 'CHA' and the term in section 3.15 to read 'ES'.
- 3.77 No other specific proposed Guidance amendments required.

#### Specific response to Service management and development (sections 6.18 and 6.19)

- 6.18 To ensure appropriate focus on the quality and provision of a PECS service, licensed operators should designate a single point of responsibility within their organisation for ensuring effective service management and development and to be ultimately accountable for them within the organisation.
- 6.19 We would expect licensed operators to ensure their emergency calls handling systems are developed to include best practice functionality comparable with that found in other relevant jurisdictions and to cooperate, where it is reasonably possible to do so, with requests from JHA for service and feature development. In particular, the technical functionality used to ascertain and provide accurate and reliable caller location information.

- 3.78 Airtel notes a Government of Jersey initiative to improve caller location information that it believes prudent to move forward with.
- 3.79 While accepting the section 6.18 recommendation on designating a single point of responsibility for service management and development, JT requests clarity on appropriate seniority level within an organisation.
- 3.80 Referring to section 6.19, JT requests further clarification on what represents 'other relevant jurisdictions' and the addition of 'reasonable' in relation to request from JHA for service and feature development.

#### **Authority analysis**

- 3.81 The Authority appreciates Airtel's point on service development, but finds this falls more specifically under any future arrangements requested by JHA.
- 3.82 The Authority appreciates JT's request for clarification on a designated single point of responsibility, but refers to its general principle (c) stated in section 3.2, and suggests that LOs should determine the appropriate level of seniority according to their own internal governance structures, always bearing in mind the paramount importance of a PECS in helping ensure the safety and security of Islanders and visitors.
- 3.83 The Authority refers JT to section 3.42 of this document for a response to its request for more information on what constitutes 'other relevant jurisdictions'.

3.84 The Authority finds that JT's request to include the term 'reasonable' in section 6.19 is met by the proposed Guidance, which states '...to cooperate, where it is reasonably possible to do so, with requests from JHA for service and feature development'.

#### **Authority conclusion(s)**

3.85 No specific proposed Guidance amendments required.

#### **Specific response to Service reporting (sections 6.20 – 6.21)**

6.20 For assurance, licensed operators should monitor and record data on ES calls they convey and the reliability and resilience of all associated network and service elements.

6.21 Licensed operators providing an CHA function, whether directly or through an outsourced arrangement, should be able to demonstrate the effective operation of their service and successful interoperability with JHA. We may request periodic reports to evaluate this, to ideally include:

- Service availability against KPI expectations;
- Number of calls received (within a period – e.g. day, week, month);
- Call answering times against KPI expectations; and
- Average call handling times.

3.86 Referring specifically to section 6.20, JT proposed a rewording to take into account the requirement on LOs to ensure networks are resilient and reliable for ES calls and that the party providing the CHA function should ensure associated equipment is reliable and resilient. JT further expects that JHA should define the reliability and resilience of links between itself and the CHA function.

3.87 Referring specifically to section 6.21, JT explains that it has no visibility of JHA calls answering times and request clarification on what is meant by the term 'average handling times'.

#### **Authority analysis**

3.88 Having considered JT's request to reword section 6.20, the Authority finds no reason to do so given that:

- (a) Given all the provisions of this guidance, it seems entirely sensible for operators to monitor ES calls in order to ensure all network and service elements are performing reliably; and
- (b) In the event of a ES calls service incident, that an operator can produce reliable data for examination to determine potential cause and remedies.

- 3.89 In further response to JT’s comments on section 6.2, the Authority would expect an operator providing a CHA function to work with the emergency services when defining the reliability and resilience of links between the two parties. Given that two parties are involved in providing these links, the Authority accepts that neither party may be able to impose its views on the other, but would expect any LO involved in providing these links to aim for the highest reasonable level of reliability, given the important nature of ES calls and its obligation under LC 14 to provide an end-to-end service.
- 3.90 In response to the clarification request on average call handling times, the Authority confirms this relates to time between JT answering the call and successfully handing over to the appropriate ES (noting there is no KPI expectation on this but assuming it may be a relevant metric).

**Authority conclusion(s)**

3.91 No specific proposed Guidance amendments required.

**Specific response(s) to Service incidents section (Sections 6.22 - 6.27)**

|      |  |   |
|------|--|---|
| 6.22 | We consider any loss of ES calls to be urgent in nature and therefore service failure incidents should be reported to the Authority as soon as possible and ideally within 24 hours of a licensed operator becoming aware of them. |   |
| 6.23 | We would expect licensed operators to use the following criteria when determining which incidents to report:   |   |
|      | <b>Network / service type</b>  | <b>Minimum number of users affected</b>   |
|      | <b>Minimum duration of service loss or major disruption</b>  |   |
|      | Fixed or mobile network providing access to the emergency services   | 10  |
|      | Fixed or mobile network providing access to the emergency services   | 100   |
|      | CHA function   | Any service disruption leading to a failure to achieve KPIs or being unable to pass calls to JHA. |
| 6.24 | In addition to above, we would expect licensed operators should report any incident involving ES calls that may attract significant media attention.   |   |
| 6.25 | Incident reports should contain the following information:   |   |
|      | <ul style="list-style-type: none"> <li>• Licensed operator name;</li> </ul>  |   |

- A unique reference number for the incident;
- Date and time of the incident;
- Number of affected users and the nature and duration of service disruption they experienced; and
- Whether incident is resolved or ongoing.

6.26 We would expect licensed operators should provide the Authority with periodic updates on any ongoing incidents and a final update once resolved.

6.27 We would expect licensed operators to also comply with incident reporting requirements established in any requests, instructions, code of practice or similar issued by JHA in connection with providing a local PECS to the expected standard.

3.92 Airtel notes that in a worst-case scenario its customers would be able to call 999 services via another operator's network.

3.93 JT raises several points on the incident reporting requirements contained in the proposed Guidance, including whether it is appropriate to have the same approach for mobile and fixed networks and the specific thresholds for each, noting equivalent approaches taken by Ofcom and various earlier or related proposals made or agreed in this area.

3.94 JT further explains an established practice providing a failover arrangement should JT's primary CHA function be lost that would result in no loss of service, and states its understanding is that this would mean that JT remains in compliance with its obligations.

3.95 JT finally questions the need for section 6.24, stating it will be difficult for LOs to determine when media interest is heightened.

### **Authority analysis**

3.96 The Authority notes and welcomes Airtel's and JT's explanation of the existing agreement between LOs meaning if the mobile network of one fails then its users will automatically failover and be able to make ES calls on the mobile network of another LO. This facility, if maintained, presumably means the chance of Islanders and visitors being unable to call the ES from their mobile phones is extremely low. JT's comments on local mobile networks being designed to provide a high level of redundant coverage through overlapping cells similarly supports this service security.

3.97 The Authority finds JT's challenge of the principle that suitable numerical thresholds for reporting incidents affecting access to the ES in Jersey can be derived by a division of those applied by Ofcom in the UK is valid. The Authority further appreciates points made about differentiating between approaches taken for fixed and mobile incident reporting, including the potential for agreement with individual mobile operators, and linking fixed line incident



reporting to the number of ports on a single fibre access shelf. However, the Authority notes that these points from JT are not similarly made by other respondents and needs to balance any changes against the benefits of having simple, clear and consistent reporting thresholds.

3.98 Noting JT’s assertion that Ofcom has agreed individual reporting processes with each of the four UK mobile operators, and recognising the potential challenges of adopting simple, clear and consistent reporting thresholds, the Authority recognises the validity of being able to agree individual reporting thresholds or arrangements with LOs from time-to-time, for defined periods. There may be a need for enhanced incident reporting in response to persistent service failures, for example, or reduced incident reporting availability during an agreed programme of network or system replacement or rearrangements.

3.99 The Authority welcomes JT’s explanation on existing failover arrangement with JHA should the primary CHA function be lost and concurs with JT’s understanding of reporting requirements under the Guidance.

3.100 While appreciating JT’s recommendation to remove section 6.24 from the Guidance, the Authority will retain in view of its public association with the PECS and possibility that media attention may be directed towards the Authority should a significant incident occur. Considering the point made about uncertainty with regard to reporting, the Authority expects LOs to use their best judgement, presuming similar judgements are made when escalating internal incidents to other stakeholders.

3.101 Noting the agreement in section 3.4 above to add ‘reasonable’ to an expectation for complying with requests, instructions, code of practice or similar issued by JHA, the Authority will take a similar approach to section 9.27 of the proposed Guidance.

3.102 On reading through, the Authority is concerned that sections 3.24 and 3.27 contain some ambiguous wording, specifically by including ‘would’ and ‘should’ in the sections ‘...we would expect licensed operators should report...’ and ‘We would expect licensed operators should provide...’. The Authority can improve by substituting ‘should’ with ‘to’, thus changing the sections to ‘...we would expect licensed operators to report...’ and ‘We would expect licensed operators to provide...’. Authority conclusion(s)

3.103 The Authority will amend the incident reporting thresholds in section 3.23 of the proposed Guidance to the following:

| Network / service type   | Minimum number of users affected | Minimum duration of service loss or major disruption |
|--|----------------------------------|--|
| Fixed or mobile network providing access to the emergency services | 100                              | 1 hour   |

|  |   |              |
|--|---|--------------|
| Fixed or mobile network providing access to the emergency services | 1,000   | Any duration |
| CHA function   | Any service disruption leading to a failure to achieve KPIs or being unable to pass calls to JHA. |              |

3.104 The Authority will add the following section under ‘Service incidents’ sub-heading in the Guidance:

*We may agree or establish different criteria or reporting thresholds for individual licensed operators from time-to-time, in view of exceptional circumstances that may limit their ability to report for a period or because enhanced reporting is required for a period.*

3.105 The Authority will amend section 3.28 of the proposed Guidance to:

*We would expect licensed operators to also comply with incident reporting requirements established in any reasonable requests, instructions, code of practice or similar issued by JHA in connection with providing a local PECS to the expected standard.*

3.106 The Authority will amend section 3.24 of the proposed Guidance to:

*In addition to above, we would expect licensed operators to report any incident involving ES calls that may attract significant media attention.*

3.107 The Authority will amend section 3.27 of the proposed Guidance to:

*We would expect licensed operators to provide the Authority with periodic updates on any ongoing incidents and a final update once resolved.*

3.108 No further proposed Guidance amendments required.

# Annex A: Final Guidance

This section contains the final Guidance for issue with amendments from proposed Guidance shown as marked-up text.

## 1 Introduction

- 1.1 The ability to dial a short single number to call the police, ambulance, fire service or marine rescue (jointly the **Emergency Services** or **ES**) is key for the safety and security of Jersey's citizens and visitors. Given this, the performance and security of a Public Emergency Call Service (**PECS**) is critically important to the Authority.
- 1.2 The Class II and Class III licences issued by the Authority to certain local telecoms operators require them to provide a PECS that enables users to communicate with the ES by calling 112 or 999. This obligation is met by licensed operators providing an end-to-end PECS that allows members of the public to call 112 or 999 and be promptly connected to the ES.<sup>13</sup>
- 1.3 ~~Class III licence holders are further required to make emergency call services available to other licensed operators, with an ability to charge reasonable fees. This obligation is met through the provision of an Emergency Call Handling Agent (**CHA**) function, which promptly answers 112 or 999 calls and routes them to the appropriate ES<sup>14</sup>.~~

Class III LOs have a further licence obligation contained in LC 14.3, which is to make emergency call services available to other LOs. This is presently addressed by Class III LO JT (Jersey) Limited through its Emergency Services Access Service (**ESAS**) available to other LOs through that company's Reference Interconnect Offer (**RIO**) and which has historically provided and presently provides the emergency Call Handling Agent (**CHA**) function described within the Guidance.

- 1.4 This Guidance sets out the Authority's expectations on how Class II and Class III licensed operators should approach compliance with these PECS-related licence conditions. It may be taken into account in enforcement actions against licensed operators on other binding requirements including the obligation to provide a PECS and CHA.
- 1.5 We recognise that providing an effective PECS requires the active involvement of several parties, including Justice and Home Affairs (**JHA**), the Government of Jersey department responsible for providing ES in the Island<sup>15</sup>, which may produce codes of practice or similar addressing emergency call answering and handling standards or the provision of certain emergency call service features.

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<sup>13</sup> Obligation confirmed by a Direction to JT (Jersey) Limited and Sure (Jersey) Limited in November 2020 within JCRA Document No: JCRA 20/27.

<sup>14</sup> Ibid

<sup>15</sup> Or its successors.

## 2 Legal context, scope and enforcement

### Legal context

- 2.1 The requirement for Class II and Class III licensed operators to provide a PECS is contained in Licence Conditions 14.1 and 14.2, which require the provision of a free of charge service to users allowing them to communicate with the ES by using codes 112 and 999.
- 2.2 The requirement for Class III licensed operators to provide emergency call services available to other licensed operators is contained in Licence Condition 14.3. This supports expectations set-out within this Guidance for the provision of a CHA function.
- 2.3 The requirement for Class II and Class III licensed operators to provide the Authority with information, including reports, is contained in Licence Condition 4, which supports expectations set-out within this Guidance for PECS performance and incident reporting.
- 2.4 The requirement for Class II and Class III licensed operators to take all reasonable steps to ensure network integrity is contained in Licence Condition 9, which supports expectations set out within this Guidance to ensure PECS resilience and reliability<sup>16</sup>.

### Scope

- 2.5 This Guidance applies to all Class II and Class III licence holders obliged to provide a PECS service.
- 2.6 Its focus is on underlying resilience and reliability of networks and systems used to convey calls to the ES, and the effectiveness of any associated processes and people. When providing a PECS, licensed operators should also take into account any codes of practice or similar issued by JHA which may relate to emergency call answering and handling standards or the provision of certain emergency call service features.
- 2.7 We may need to make changes to this Guidance from time-to-time and will consult on these changes in the usual way as and when appropriate.

### Enforcement

- 2.8 Although this Guidance is not legally binding, we may take it into account in enforcement action against other binding requirements, including licence conditions.

## 3 Guidance for licensed operators providing a public emergency call service

- 3.1 This section sets out the principles for licensed operators providing a PECS on how it should be provided to meet the requirements of their licence conditions. Its contents are:

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<sup>16</sup> Licence Condition 9.1 states that 'The Licensee shall take all reasonable steps to ensure the integrity of the Network...'

- Overarching principles
- Access network resilience
- VoIP considerations
- CHA function
- Service management and development
- Service reporting
- Incident reporting

### Overarching principles

- 3.2 Given the potentially life-threatening or personal security-related consequences involved, Islanders and visitors should have access to a reliable and high-standard PECS comparable to that available in other relevant jurisdictions<sup>17</sup>.
- 3.3 While the end-to-end process of providing a complete local emergency service relies on several separate and distinct activities that may be undertaken by different organisations, licensed operators should recognise they have a pivotal role in achieving the reliability and high-standard expected and should focus every reasonable effort towards designing, developing, maintaining and managing the networks, systems, people and processes needed to connect users with the ES.
- 3.4 Licensed operators should further monitor network and service elements used to convey emergency calls and be able to report on reliability and detect loss of service incidents, which should be reported to the Authority and may be investigated.
- 3.5 Additional to this Guidance, licensed operators should be aware of and aim to comply with any **reasonable** requests, instructions, code of practice or similar issued by JHA in connection with providing a local PECS to the expected standard.

### Operator ~~Access~~ network resilience

- 3.6 Licensed operators should ensure their networks and services are generally reliable and resilient with extra attention given to network and service elements used to convey calls to the ES.
- 3.7 Given the critical nature of ES calls, licensed operators should take enhanced measures to ensure uninterrupted access through effective design, building and maintaining of any element associated with ES calls. These include but are not limited to network infrastructure, systems, buildings, power, processes and people. We recognise that various industry standards exist to

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<sup>17</sup> While not required to apply national or international best practice standards, we refer to guidance provided by UK communications regulator Ofcom or contained within the European Electronic Communications Code or its successors.

establish best practice in some of these areas and commitment to and compliance with such standards is always to be encouraged<sup>18</sup>.

- 3.8 Particular attention should be taken to avoid single points of failure associated with any elements carrying ES calls where it is reasonably possible to do so. Concessions to this may be where geographical or physical constraints exist or where doing so may be disproportionately expensive.
- 3.9 Licensed operators may decide to outsource to third parties some or all of their elements **of the operator network** associated with ES calls. In this case, sufficient levels of contractual control over third parties should be in place to ensure continued compliance with licence condition obligations and the expectations set-out in this Guidance.

### **VoIP considerations**

- 3.10 Licensed operators providing services over broadband connections using Voice over IP (**VoIP**) technology should take into account the impact of power cuts on a user's ability to make ES calls.
- 3.11 Attention is also drawn to ensuring ES calls made using any VoIP service in Jersey are correctly routed to Jersey's ES.

### **JHA CHA function**

- 3.12 We would expect licensed operators providing a CHA function to establish appropriately enhanced organisational structures, operational processes, networks and systems and that these are continually monitored and managed to ensure that they remain effective. There should also be close liaison and understanding with JHA to ensure staff and management associated with the CHA are meeting expressed responsibilities.
- 3.13 Given the safety of life implications associated with emergency calls, we expect licensed operators providing an CHA function to achieve the following KPIs:
- **Service availability:** the CHA function should be designed and managed to remain operational (in that incoming calls can be answered at any level of performance) 99.999% of the time ('five nines' availability), measured on a monthly basis<sup>19</sup>. Such availability encompasses all elements of the CHA function including systems, networks and personnel. This target complements the call answer time performance criterion below, where we would expect a strict constraint on the allowable degradation of service that can occur.

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<sup>18</sup> Commitment to relevant ISO standards or equivalent for example.

<sup>19</sup> Availability = (Uptime/Total Time), where Uptime is time during which the CHA is able to answer incoming calls and Total Time is the sum of the Uptime and Downtime.

- **Service performance:** in conjunction with the service availability expectations stated above we would expect that 95% of calls made to 999 or 112 that are received into CHA call queues will be answered within 5 seconds, as measured over a 24-hour period (midnight to midnight). Any calls abandoned by the caller without answer within 5 seconds need not be included though should be noted.
- 3.14 We accept there may be occasions when achieving these KPIs is not possible due to exceptional circumstances, including but not limited to:
- Major site loss or damage;
  - Unavoidable unscheduled staff evacuations;
  - Wide-scale staffing challenges caused by unpredictable Island-wide issues;
  - Severely disrupting weather events; and
  - Unforeseen major local incident.
- 3.15 Notwithstanding this, we expect licensed operators to take all reasonable steps to avoid or minimise the risk of exceptional circumstances affecting their ability to provide the ~~EOS~~ ES function and have arrangements in place to rapidly restore services should they occur.
- 3.16 Given the complexities involved in providing an CHA function we recognise that licensed operators may choose to contract another licensed operator or competent agency to provide this service on their behalf. In this case, we remind the originating licensed operator that they remain responsible for ensuring reliable and resilient interconnect arrangements [to a level established by the expectations of this Guidance](#) are in place to provide for assured emergency calls continuity and, as part of the arrangements, are able to satisfy themselves that the CHA function is being performed according to the expectations set out in this Guidance.
- 3.17 Given the critical nature of the service, however, in the event a licensed operator chooses to outsource their CHA function responsibilities to another licensed operator or competent agency, they should only do so to one evaluated and approved by JHA.

### **Service management and development**

- 3.18 To ensure appropriate focus on the quality and provision of a PECS service, licensed operators should designate a single point of responsibility within their organisation for ensuring effective service management and development and to be ultimately accountable for them within the organisation.
- 3.19 We would expect licensed operators to ensure their emergency calls handling systems are developed to include best practice functionality comparable with that found in other relevant jurisdictions and to cooperate, where it is reasonably possible to do so, with requests from JHA

for service and feature development. In particular, the technical functionality used to ascertain and provide accurate and reliable caller location information.

### Service reporting

3.20 For assurance, licensed operators should monitor and record data on ES calls they convey and the reliability and resilience of all associated network and service elements.

3.21 Licensed operators providing an CHA function, whether directly or through an outsourced arrangement, should be able to demonstrate the effective operation of their service and successful interoperability with JHA. We may request periodic reports to evaluate this, to ideally include:

- Service availability against KPI expectations;
- Number of calls received (within a period – e.g. day, week, month);
- Call answering times against KPI expectations; and
- Average call handling times.

### Service incidents

3.22 We consider any loss of ES calls to be urgent in nature and therefore service failure incidents should be reported to the Authority as soon as possible and ideally within 24 hours of a licensed operator becoming aware of them.

3.23 We would expect licensed operators to use the following criteria when determining which incidents to report:

| Network / service type   | Minimum number of users affected  | Minimum duration of service loss or major disruption |
|--|---|--|
| Fixed or mobile network providing access to the emergency services | <del>10</del> 100   | 1 hour   |
| Fixed or mobile network providing access to the emergency services | <del>100</del> 1000   | Any duration   |
| CHA function   | Any service disruption leading to a failure to achieve KPIs or being unable to pass calls to JHA. |  |

3.24 In addition to above, we would expect licensed operators ~~should~~ to report any incident involving ES calls that may attract significant media attention.



- 3.25 We may agree or establish different criteria or reporting thresholds for individual licensed operators from time-to-time, in view of exceptional circumstances that may limit their ability to report for a period or because enhanced reporting is required for a period.
- 3.26 Incident reports should contain the following information:
- Licensed operator name;
  - A unique reference number for the incident;
  - Date and time of the incident;
  - Number of affected users and the nature and duration of service disruption they experienced; and
  - Whether incident is resolved or ongoing.
- 3.27 We would expect licensed operators ~~should to~~ provide the Authority with periodic updates on any ongoing incidents and a final update once resolved.
- 3.28 We would expect licensed operators to also comply with incident reporting requirements established in any reasonable requests, instructions, code of practice or similar issued by JHA in connection with providing a local PECS to the expected standard.