



# **Position Paper**

## **Routing of Emergency Calls**

### **According to Art. 122 TKG 2021**

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**Rundfunk und Telekom Regulierungs-GmbH (RTR-GmbH)**

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## **1 General**

The purpose of this document is to present the position of Rundfunk und Telekom Regulierungs-GmbH, Telecommunications and Postal Services Division (RTR-GmbH) with regard to legal obligations in connection with emergency calls, specifically with regard to routing to the most appropriate public-safety answering point (PSAP) in Austria.

In the course of this, it is to be clarified in particular how the so-called "network-independent providers" (see under Terms 1.1), which apparently do not have the same possibilities regarding access to emergency services or caller location as conventional providers, can fulfil these obligations.

The following section will therefore first identify issues and problem areas that arise as a result of the Telecommunications Act (TKG 2021) with regard to routing of emergency calls. This is followed by an interpretation of the legal regulations by RTR-GmbH and the resulting consequences for providers and operators - and especially for network-independent providers.

With regard to the terminology used in this document, it should be noted that the obligations standardized in the TKG 2021 in connection with emergency calls are directed not only at operators but also at providers of publicly available number-based interpersonal communication services (NB-ICS). This poses special problems with regard to emergency calls, especially for network-independent providers, since such providers are not integrated with an operator (of a communications network) and emergency call routing, for example, therefore poses a special challenge for them. The most prominent examples of such network-independent providers are Viber Out or Skype Out, which offer such NB-ICS.

In order not to go beyond the scope of this interpretative aid, neither the obligations pursuant to Art 122 Par.1 (also to transmit text-based emergency calls) nor Art. 124 TKG 2021 (information to operators of emergency services) are discussed here, although these are undoubtedly also to be observed by operators and providers<sup>1</sup>.

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<sup>1</sup> In addition, the electronic interface standardised in § 124 TKG 2021 is currently (December 2022) also being revised within the framework of the AK-TK.

## 1.1 Terms

**provider** (Art. 4 No. 36 TKG 2021): an undertaking that provides a publicly available communications service;

**operator** (Art. 4 No. 25 TKG 2021) an undertaking providing or authorised to provide a public communications network or an associated facility;

**EECC** (Directive [EU] 2018/1972): European Electronic Communications Code;

**NB-ICS** ('number-based interpersonal communications service' according to Art. 4 No. 7 TKG 2021): an interpersonal communications service which connects with publicly assigned numbering resources, namely, a number or numbers in national or international numbering plans, or which enables communication with a number or numbers in national or international numbering plans;

**network-independent provider**: providers that are not integrated with an operator (of a communications network);

**public safety answering point or PSAP** (Art. 4 No. 29 TKG 2021): a physical location where an emergency communication is first received under the responsibility of a public authority or a state-recognised private organisation;

**most appropriate PSAP** (Art. 4 No. 30 TKG 2021): a PSAP established by responsible authorities to cover emergency communications from a specified area or for emergency communications of a specified type;

**caller location information** (Art. 4 No. 33 TKG 2021): in a public mobile network, the data processed, derived from network infrastructure or handsets, indicating the geographic position of an end user's mobile terminal equipment, and, in a public fixed network, the data about the physical address of the network termination point;

**network-independent NB-ICS**: a NB-ICS offered by a network-independent-provider. Corresponds to OTT-0 service according to BEREC, BoR (16) 35, p 15.<sup>2</sup>

**NB-ICS-App**: an application (app), program, or software that enables a network-independent NB-ICS to be used.

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<sup>2</sup> BoR (16) 35, p 15ff,  
[https://www.berec.europa.eu/sites/default/files/files/document\\_register\\_store/2016/2/BoR\\_%2816%29\\_35\\_Report\\_on\\_OTT\\_services.pdf](https://www.berec.europa.eu/sites/default/files/files/document_register_store/2016/2/BoR_%2816%29_35_Report_on_OTT_services.pdf)

## 2 Problem overview

Art. 122 (1) TKG 2021 stipulates that emergency calls are to be routed to the most appropriate PSAP. This obligation was previously "only" found in the KEM-V 2009, but not in the TKG 2003, whereby in concreto the "framework of technical possibilities" had to be taken into account. In addition, text-based emergency calls (SMS, message services, apps) are now explicitly covered.

This also implements the obligation from Art 108 sentence 2 EECC regarding the uninterrupted accessibility of emergency services as well as the freedom from charges for emergency calls required in Art 109 (1) sentence 1 EECC. These provisions are directed at providers and operators and regulate the connection to emergency numbers. The basic idea is the obligation of the operator as well as the provider to route all calls (and text-based messages) to a specific emergency number to the most appropriate PSAP, in many cases to the nearest emergency call centre.

In order to fulfil this obligation, it is necessary that the network-independent provider has reliable/valid location data. While the existence of such location data is technically guaranteed as a rule in the area of fixed network telephony and in traditional mobile communication, the situation is fundamentally different in the area of OTT services, since these "nomadically" used apps and services have no fixed location information based on the network infrastructure used.

Nevertheless, in the case of an emergency call, it is essential that emergency calls sent via network-independent NB-ICS are also routed to the most appropriate PSAP. Apart from the legal obligation, end users assume that this is technically possible if other apps on the same terminal device can display and use the location. It is therefore hardly comprehensible for the end user if, for example, a navigation app can use the location with the same terminal device, but the network-independent NB-ICS cannot in the case of an emergency call.

### **3 Legal regulation**

With Art. 122 (1) TKG 2021, not only operators but also providers of NB-ICS (also referred to as "network-independent providers" in the EECC, e.g. Skype Out, Viber Out, etc.) are obliged to ensure the free delivery of an emergency call when dialling an emergency number to the most appropriate PSAP. In this context, no technical restriction was standardised in the TKG 2021, so that this obligation also applies to those (network-independent) providers who are currently reaching their alleged technical limits, in particular with regard to correct routing and the provision of the caller's location (this includes both network-based location information and, if available, information on the caller's location obtained from the terminal device, cf. Art. 109 (6) EECC).

The KEM-V 2009, which is to be amended in spring 2023 on the basis of Art. 122 (1) TKG 2021, currently still contains provisions which are based on the (now repealed) Universal Service Directive (Directive 2002/22/EC) and which take into account the "technical possibilities in the associated communications network" (cf. Art. 22 (1) KEM-V 2009) at least with regard to the corresponding routing destination for emergency calls. This provision obliges both communications network operators and communications service providers within the meaning of the TKG 2003, which correspond to the terms "operator" (of a public communications network) and "provider" (of a public communications service) according to the TKG 2021. However, such a consideration of the technical possibilities is no longer possible in the KEM-V 2009 due to the standardisation of this obligation (routing to the most appropriate PSAP) in the TKG 2021 - i.e. in a law instead of an ordinance. Instead, appropriate solutions must be found from the provisions of the TKG 2021 and the interpretation in conformity with the EECC.

#### **3.1 Recitals in the EECC**

Recital 284: „ [...] In exceptional circumstances, namely due to a lack of technical feasibility, they [network-independent providers] might not be able to provide access to emergency services or caller location, or to both. In such cases, they should inform their customers adequately in the contract. [...]“

Recital 284 should be interpreted in summary as meaning that an exception would be possible for those cases where it is technically not possible to determine the caller location (either for routing to the most appropriate PSAP or for the PSAP to request the location).

Recital 286: „ [...] Member States should ensure that standards ensuring accurate and reliable routing and connection to the emergency services are implemented as soon as possible in order to allow network-independent providers of number-based interpersonal communications services to fulfil the obligations related to access to emergency services and caller location information provision at a level comparable to that required of other providers of such communications services. Where such standards and the related PSAP systems have not been implemented, network-independent number-based interpersonal communications services should not be

required to provide access to emergency services except in a manner that is **technically feasible or economically viable [Emphasis added by RTR]**. This may, for example, include the designation by a Member State of a single, central PSAP for receiving emergency communications. [...]“

Recital 286 indicates the possibility of compensating for the technical inability to identify the most appropriate PSAP. It states that it may be permissible, for example, to designate only one emergency call centre for the entire Member State. However, such a determination is not feasible at the present time due to the distribution of competences regarding rescue and fire services in Austria - these fall under the legislative competence of the federal provinces.

However, it is not ruled out that it is permissible to oblige providers of network-independent number-based interpersonal communications services to guarantee access to emergency services as long as this is technically feasible and economically viable.

## **4 Interpretation of the regulations by RTR-GmbH**

In principle, the obligation under Art. 122 (1) TKG 2021 must also be complied with for emergency calls made by terminal devices within Austria via a network-independent NB-ICS.

Only in the case of emergency calls made via a network-independent NB-ICS and at the same time the terminal device in question is not able to determine the location, it is permissible by way of exception in the sense of Recital 284 to make the delivery to an emergency call enquiry point corresponding to the dialled emergency number, but not necessarily locally applicable. The end user must be informed of such cases accordingly (e.g. in the general terms and conditions and/or service descriptions).

The exception only applies to terminal devices that cannot determine the location from a technical point of view, but not to cases in which the individual user settings prevent the use of the location by the NB-ICS app.

Cases in which the location cannot be determined are, for example, if the location cannot be determined due to a lack of GPS reception or if the terminal device has not implemented a GPS module and the terminal device cannot determine the location using another method.

In those cases in which location determination is not permitted by the end user, a legally compliant provision of the network-independent NB-ICS is not possible and therefore not permitted.

If another app on the terminal device uses location determination, it must be assumed in any case that the terminal device can determine the location and therefore there is also an unrestricted obligation for an NB-ICS app installed on the same terminal device to deliver an emergency call to the most appropriate PSAP in the event of an emergency call.

The initiation of the connection to the most appropriate PSAP must be ensured by the same actions of the caller as the initiation of any other similar communication by means of the NB-ICS app in question. Under no circumstances may other actions (e.g. location activation for the NB-ICS app) be preceded and thus delay access to emergency calls.

## 4.1 Justification

Basically, there are two ways to determine the location of a caller for emergency call routing: on the one hand, via the information available in the corresponding (mobile) network (network-based location information) and, on the other hand, the location information determined by the terminal device itself (handset-based location information). The network-based location information is only available to the operator of the corresponding communication network. As a rule, the determination and use of the handset-based location information is possible for all applications installed on this terminal device.

The NB-ICS app of a network-independent NB-ICS therefore has the possibility to read this data and use it accordingly.

Based on the location in Austria, it is possible to clearly determine the most appropriate PSAP. There is therefore no technical obstacle (cf. recitals 284 and 286) to delivering an emergency call made by means of an NB-ICS app in the context of a network-independent NB-ICS (installed on a smartphone generally used today) to the most appropriate PSAP. See also [www.rtr.at/112](http://www.rtr.at/112), [ef\\_kennungen](#) and recommendation EPO11 of the AK-TK.

The economic efforts required in connection with this implementation are also reasonable, as the reading of the location of the terminal device in an NB-ICS app is a standard solution in many apps.

In Austria, the geographical assignment of the handset-based location to the corresponding catchment area of an emergency call centre must be carried out by every operator obliged to deliver emergency calls and can therefore usually also be expected of a network-independent provider.

This also takes into account one of the main objectives of the EECC, according to which a level playing field should be created for all the market participants.

The use of a handset-based location is - technically speaking - also possible with other apps installed on the terminal device. Therefore, it is not comprehensible for the end user why the emergency call is not routed to the most appropriate PSAP if other apps can very well evaluate the location of the terminal device.

As a rule, the use of the location can be prevented by the user individually for each app. If this is done for an NB-ICS app, the provision of the network-independent NB-ICS (for example, calls or chats) is possible in principle, but in the case of an emergency call, the correct routing by the network-independent NB-ICS does not work. One possible solution would be for the caller to be asked to share the location data for the network-independent NB-ICS immediately before dialling the emergency call. However, this is not an acceptable solution for the following three reasons. Manual activation immediately before the emergency call

1) takes time, which delays access to emergency calls,

2) in a stressful situation, it can easily lead to incorrect operation of the terminal device, and

3) from a technical point of view, the location may be given very inaccurately immediately after activation.

## **4.2 Specific questions**

### **4.2.1 May an emergency call initiated via the NB-ICS app also be made directly via the mobile network?**

Yes, as long as it is ensured that in case of unavailability of the mobile network or service (e.g. no network coverage, no SIM card, ...), BUT if the network-independent NB-ICS is available (e.g. via WLAN), the emergency calls are nevertheless routed correctly to the most appropriate PSAP according to the above specifications.

If no network-independent NB-ICS is available, there is of course no obligation to enable emergency calls.

### **4.2.2 Is there a proposed text for a general terms and conditions-clause?**

For example, it could be formulated: "If the terminal device cannot determine the caller's location in order to correctly route the call to the most appropriate PSAP, the emergency call will be routed to another PSAP in the same country".

### **4.2.3 Is there a legally compliant solution if emergency calls can only be made via the mobile network?**

Yes, in this case the NB-ICS app can only be used (for calls other than emergency calls) if an emergency call can be made via the mobile network (see point 4.2.1). If no mobile network is available, no calls other than emergency calls may be made via the NB-ICS app, even if the terminal is logged into the WLAN.

## **5 Legal consequences in case of violation**

In the event of a violation, RTR-GmbH may order appropriate measures to ensure compliance with the violated provision(s) within the framework of a supervisory procedure (cf. Art. 184 TKG 2021). In the final analysis, this may result in the suspension or prohibition of the right to provide communications networks or services.

In addition, failure to ensure correct emergency call routing constitutes an administrative offence and is punishable by a fine of up to 75,000 euros, and in the event that it cannot be collected, by imprisonment for up to six weeks (cf. Art. 188 (5) No. 6 TKG 2021).