

**GOVERNMENT OF MONTENEGRO  
MINISTRY OF TRANSPORTATION, MARITIME AFFAIRS AND TELECOMMUNICATIONS**

**REGULATIONS  
ON PARAMETERS OF THE QUALITY OF SERVICES, MARGINAL VALUES AND METHODS OF  
MEASURING PARAMETERS FOR USING THE SINGLE EUROPEAN EMERGENCY NUMBER 112**

**PODGORICA, 22 September. 2009**

Pursuant to Article 88 § 3 of the Law on Electronic Communications (*Official Gazette of Montenegro*, No. 50/08), the Ministry of Transportation, Maritime Affairs and Telecommunications issues the following

**REGULATIONS**  
**ON PARAMETERS OF THE QUALITY OF SERVICES, MARGINAL VALUES AND METHODS OF**  
**MEASURING PARAMETERS FOR USING THE SINGLE EUROPEAN EMERGENCY NUMBER**

("Sl. list Crne Gore", br. 64/09 od 22.09.2009)

**Subject matter**

Article 1

This Regulation prescribes parameters of the quality of services for the use of the single European emergency telephone number 112 (hereinafter: No. 112), marginal values and methods of measuring those parameters.

**Definitions**

Article 2

Terms used in this Regulation have the following meanings:

- **time for establishing a connection with No. 112** is the period measured in seconds, with one decimal number, which passes from the moment when the public telephone network has transmitted all information necessary for establishing a connection with No. 112 until the moment when the caller receives a response, a ring sound or a busy signal;
- **unsuccessful call of No. 112** is a call correctly dialed after receiving a dial tone (in fixed networks) for which no busy signal or ring sound appears after 30 seconds from the moment when the network receives all information necessary for establishing a connection on the caller's access line;
- **indicator of unsuccessful calls to No. 112** is a percentage point ratio of unsuccessful calls No. 112 in the total number of attempted calls to No. 112 in a specific time period;
- **indicator of faults on the OKC 112 access line** is a percentage point ratio of faults reported in a specific time period and the number of OKC 112 access lines in that period;
- **time-period for repairing faults on the OKC 112 access line** is the time in hours and minutes from the moment when a fault is reported to the operator's competent service until the fault is repaired and the situation normalized;
- **valid report of fault** is notification of interrupted or lower-quality connections due to a fault in an operator's public telephone network (excluding equipment faults on the customer's side of the network termination point).

## **Functioning of reserve lines**

### Article 3

In the event of a fault on OKC 112 access lines, operators are required to immediately secure re-direction to reserve access lines and to give priority to repairing the fault.

## **Parameters of quality of service for using No. 112**

### Article 4

The following are parameters of the quality of service for using No. 112:

- 1) indicator of faults on the OKC 112 access line;
- 2) time for repairing faults on the OKC 112 access line;
- 3) indicator of unsuccessful calls to No. 112;
- 4) time of establishing a connection with No. 112;
- 5) time of transfer of information about the caller's number;
- 6) time of transfer of information about the caller's location.

## **Indicator of faults on the access line**

### Article 5

The indicator of faults on the OKC 112 access line in a single calendar year may not exceed 5% per operator.

## **Time for repairing faults on the OKC 112 access line**

### Article 6

The time for repairing faults on the OKC 112 access line may not exceed four hours for repairing 90% of such faults per calendar year per operator.

## **The indicator of unsuccessful calls to No. 112**

### Article 7

The indicator of unsuccessful calls to No. 112 may not exceed 5% per year.

## **The time of establishing a connection with No. 112**

### Article 8

The mean time of establishing a connection with No. 112 in a calendar year may not exceed three seconds. The time for establishing a connection with No. 112 in which 90% of all connections are established may not be more than eight seconds.

## **The time of transfer of information about the caller's number**

### Article 9

The time of transfer of information about the caller's number is measured from the establishment of the call until the receipt of information, or data, in OKC 112.

The time of transfer of information about the caller's number may not exceed five seconds.

The mean annual time of transfer of information about the caller's number may not exceed two seconds.

## **The time of transfer of information about the caller's location**

### Article 10

The time of transfer of information about the caller's location is measured from the establishment of the call until the reception of information in the OKC 112.

The mean time of transfer of information about the caller's location in one calendar year may not exceed 10 seconds, and the time of transfer of information about the caller's location for 90% of all calls to No. 112 in one year may not exceed 20 seconds.

## **Information about the number and data on the caller's location**

### Article 11

Operators are obliged to forward information about the number and data about the caller's location to the OKC 112 which receives calls to No. 112 via the data transfer network. The technical specifications of the data transfer network are issued by the OKC 112 which processes calls to No. 112.

As an exception from paragraph 1 of this article, data on the caller's location are, in the case of technical incapacity of the operator or OKC 112, forwarded to the OKC 112 area unit which receives calls toward 112, at its request, where an operator proves technical incapacity to forward information about the establishment of the call.

In the case of mobile users, mobile telephony operators are obliged to forward warnings to the mobile users about dangers by means of an SMS broadcasted within a certain area.

## **Processing of data on location**

### Article 12

All location data delivered must be accompanied with identification of the network from which the call started. Fixed public telephony network operators are obliged to make available the installation address of the line from which No. 112 was called, with the criterion that the area of the location of a fixed telephony caller may not exceed 100 square metres.

Mobile public operators are obliged to submit the information on the caller's location in accordance with the criterion that the area of the circle defining location of a caller is located within the circle the radius of which amounts to 100 m in 67% of calls, or within a circle the radius of which amounts to 300 m in 95% of calls via network based technologies.

Operators process data about location in an indiscriminating manner. Discrimination between the quality of processing data of own subscribers and other public telephony network users is especially prohibited.

Operators' software applications used to process data about location must support technologies for processing data on callers' locations, based on calculation of up-link time difference of arrival of transmission signals collected from base stations, which enables obtaining the information on location with the requested accuracy level referred to in paragraph 3 of this article.

Operators are obliged to refer to the Ministry responsible for electronic communication affairs for consent – positive opinion on equipment, software and hardware used for processing the data on location of a caller, for the purpose of providing the criteria parameters, i.e. single platform.

### **Methods of measurement of quality parameters**

#### Article 13

In measuring parameters of quality referred to in Article 4 of this Regulation, operators shall apply definitions and methods contained in the Annex 1, printed together with this regulations and being the integral part thereof.

### **Obligation of submitting reports**

#### Article 14

Operators are obliged to submit reports on the values of the parameters of quality of the service of using No. 112 to the Agency for Electronic Communications and Postal Activities (hereinafter: the Agency), no later than 1 April of every year for the preceding year, on a standard form attached to this Regulation referred to in article 13 of this regulations.

The Agency is obliged to publish the collected data on its website.

The ministry in charge of protection and rescue affairs submit to the Government of Montenegro an annual report on the parameters of quality of the service of using No. 112 compiled on the basis of data referred to in § 1 of this Article.

### **Effectiveness**

#### Article 15

This Regulation will come into effect on the eighth day from the date of its publication in the *Official Gazette of Montenegro*.

Nr: 01-3499/1  
Podgorica, 16. September 2009.

Minister,  
dr Andrija Lompar, s.r.

**Annex No. 1**

**ANNUAL REPORT**  
**Questionnaire on the Quality of using single European Emergency Number 112**

(  
For period from January 1, 20\_\_ to December 31, 20 \_\_  
1

SERVICE: **PUBLICLY AVAILABLE TELEPHONY SERVICES**

---

<sup>1</sup> In the column an operator for which annual reports are prepared shall be listed (e.g. in case when the report is prepared for an operator through the public telephony network of which public access telephony services are provided).

Notes: Public telephone network operators, i.e. publicly available telephone services operators (regardless of the public telephone networks providing technology, i.e. publicly available services providing technology) enabling single European Emergency Telephone Number 112 are obliged, according to article 14 of this Rule Book, to submit the data on the quality of service for the Single European Emergency Telephone Number to the Agency for Electronic Communication and Postal Services, not later than April 1 of the current year. **The report in electronic form are sent to the e-mail address: [ekip@ekip.me](mailto:ekip@ekip.me) and printed reports, signed by an authorized person and sealed are sent by post to the address of the Agency Electronic Communication and Postal Services.**

**Notes:** The Agency for Electronic Communication and Postal Services requires appropriate reporting from all operators providing publicly available telephone services through public telephone network of other operator (in that case appropriate number of examinees is listed for the operator for which the questionnaire is filled in). In case of selling a service the questionnaire will be filled in by the operator selling the service, i.e. the questionnaire on his behalf can be filled in by the operator which is basically providing the services, according to the previously

Operator – service provider  
/Title/

Headquarter

Postal Code:

Contact Person:

Contact Person's Phone No.:

Contact Person's e-mail:

Operator–public telephone  
network provider the report\*  
refers to /title/

agreed mutual arrangement.

Operators shall confirm the annual reports by an authorized person's signature and their seals.

Each operator answer the questions related to the available type of public telephone networks, i.e. the type of publicly available telephone services provided (publicly available telephone service on fixed location or voice services in public mobile network). In case that an operator provides publicly available telephone services on fixed location and voice services in public mobile network, it must submit certain report for both types of electronic communication services, i.e. the report must clearly indicate the publicly available telephone services it refers to.

## I Time and Manner of Service providing

Serial number	Conditions	Response YES/NO	Note or description
1.	Is 112 service available 24 hours a day 7 days a week?		
2.	Is the access to 112 service unhampered and free of charge?		
3.	Do you submit the information on the caller's number to the OKC 112 serving the calls toward 112?		
	Do you submit the information on the caller's location to the OKC 112 serving the calls toward 112?		
	If you provide the information on caller's location, in which manner and format it is provided (is the format agreed with the OKC 112?)		
4.	In case of the OKC 112 line outage, do you provide backup lines to which the calls toward 112 are forwarded? Provide short description of the related technical solution.		
5.	Are the faults to 112 given priority 24 hours a day 7 days a week?		

## II. Quality of Service Parameters

Serial number	Parameter	Condition and method	Measurements results	Note
1.	Extent of damages on OKC 112 access line	Method: METI ETSI EG 201 769 – 1 v1.1:2009 tč. 5.3 in the attachment B Requested: $\leq 5\%$	P =	
2.	Deadline for fixing the damages on the	Method: METI ETSI EG 201 769	t =	

	OKC 112 access line - The achieved time <sup>1</sup> regarding fixing the damage within 80% of working hours for the appropriately reported damages	- 1 v1.1:2009 tč. 5.2 Requested: ≤4 % within 80%		
<b>3.</b>	Portion of unsuccessful calls toward 112 - Number of unsuccessful calls toward 112 in the processed period - Total number of all calls toward 112 in the processed period	Method: METI ETSI EG 201 769 – 1 v1.1:2009 tč. 5.4 Requested: ≤ 5 % a year	%	
			N <sub>f</sub> =	
			N <sub>Σ</sub> =	
<b>4.</b>	Time needed for establishing connection to 112 - Average time required for establishing connection to 112 - The achieved time <sup>2</sup> regarding establishing connection to 112 within 80% of working hours	Method: METI ETSI EG 201 769 – 1 v1.1:2009 tč. 5.5 in the Annex B Requested: 3s Requested: 8s	t <sub>sr</sub> =	
			t <sub>80%</sub>	

<sup>1</sup> "time by which the fastest X% of", METI ETSI EG 201 769 – 1, Annex B

<sup>2</sup> "time by which the fastest X% of", METI ETSI EG 201 769 – 1, Annex B

**Date:**

---

**Authorized person:**