

**SURVEY ON REGULATION AND METHODOLOGIES FOR THE CALCULATION OF CALL
TERMINATION CHARGES IN FIXED AND MOBILE NETWORKS**

The XXVI Meeting of Permanent Consultative Committee I: Telecommunications/Information and Communication Technologies (PCC.I),

DECIDES:

1. To request Member States to fill out the questionnaire attached to the Annex hereto, up to the XXVII Meeting of PCC.I, for the purpose of collecting information on regulation and methodologies for the calculation of call termination charges in fixed and mobile networks.
2. To designate the Rapporteurship on Economic Aspects of Telecommunications/ICTs Services to collect the information with the results of the survey.
1. To entrust the Rapporteurship on Economic Aspects of Telecommunications/ICTs Services to submit the survey results during the XXVIII Meeting of PCC.I.

¹ CCP.I-TIC/doc. 3515/15 rev.1

ANNEX TO DECISION PCC.I/DEC. 220 (XXVI-15)

**SURVEY ON REGULATION AND METHODOLOGIES FOR THE CALCULATION OF CALL
TERMINATION CHARGES IN FIXED AND MOBILE NETWORKS**

I. CALL TERMINATION IN FIXED NETWORKS

1. Does your entity have faculties to regulate (establish) call termination interconnection charges over fixed telephone networks?
 - a. Yes.
 - b. No.
2. When was the last time you regulated (established) call termination interconnection charges over fixed telephone networks?
 - a. Never been regulated (established).
 - b. Between 2014 and 2015.
 - c. Between 2010 and 2013.
 - d. Between 2005 and 2009.
 - e. Before 2005.
3. At that time, were call termination interconnection charges over fixed telephone networks regulated (established) to:
 - a. Every fixed telephone operator.
 - b. Some fixed telephone operators.
 - c. Only one fixed telephone operator.
4. With regard to the costs of call termination interconnection charges over fixed telephone networks:
 - a. The same cost was established for every operator.
 - b. Different costs were established for each operator or for a group of operators.
5. If different interconnection charges were established for each operator or for a group of operators, what variable influenced the decision for such difference? (you may select more than one option):
 - a. Coverage.
 - b. Technology.
 - c. Market share.
 - d. Traffic levels.
 - e. Other (specify): _____
6. If appropriate, the call origination charge over a fixed telephone network:
 - a. Has the same cost as the fixed telephone call termination charge.
 - b. Has a different cost to the fixed telephone call termination charge.
 - c. A call origination charge over the fixed telephone network has not been established.
7. With regard to the costs of charges approved for call termination over fixed telephone networks:

- a. A gradual adjustment of their respective charges toward the new approved charges (*glide path*) was established to every operator.
 - b. A gradual adjustment of their respective charges toward the new approved charges (*glide path*) was established to some operators. Likewise, an adjustment of their respective charges toward the new approved charges was established, a single time, to another group of operators.
 - c. An adjustment of their respective charges toward the new approved charges was established, a single time, to every operator.
8. What call termination charge modalities over fixed telephone networks were regulated? (you may select more than one option):
- a. For time (payment per minute).
 - b. For capacity (fixed periodic payment).
 - c. Other (specify): _____
9. According to your country's regulations, how often are call termination charges over fixed telephone networks regulated?
- a. No definite term.
 - b. Under three years.
 - c. Between four and six years.
 - d. More than six years.
10. Call termination charges over fixed telephone networks are applicable to:
- a. All types of calls terminating over a fixed network.
 - b. Only local calls terminating over a fixed network.
 - c. Only national calls terminating over a fixed network.
 - d. Only international calls terminating over a fixed network.
 - e. Other types of call (specify): _____
11. For local calls, do you apply the *Sender Keeps All* or *Bill and Keep*?
- a. Yes.
 - b. No.
12. Is there the obligation for call termination charges over fixed telephone networks to be established as cost-based?
- a. Yes.
 - b. No.
13. What calculation methodology did you use to determine call termination charges over fixed telephone networks?
- a. Cost model based on information from operating companies (with historical costs).
 - b. Cost model based on information from operating companies (with adjusted costs).
 - c. Cost model based on an efficient company.

- d. *Price cap*.
 - e. Ramsey prices.
 - f. Efficient component price rule (ECPR).
 - g. Return rate.
 - h. *Retail minus*.
 - i. International comparison (*benchmarking*).
 - j. Referential competition (*yardstick competition*).
 - k. Other (specify): _____
14. In case a cost model is used to determine call termination charges over fixed telephone networks, select as appropriate:

Type of Cost Model	LRIC +	Pure LRIC	Other (specify): _____
Cost Estimate Method	<i>top-down</i> model	<i>bottom-up</i> model	Other (specify): _____
Network Design	<i>scorched earth</i>	<i>scorched node</i>	Other (specify): _____

15. With regard to the calculation methodology of call termination charges over fixed telephone networks, taking into consideration cost models:
- a. The model considers subadditivity of costs (cost reduction for call termination) for the provision of several services through the same network.
 - b. The model considers a one-time provision of call termination over fixed telephone networks.
16. What is (what are) the call termination charge(s) over fixed telephone networks in force in your country?

II. CALL TERMINATION OVER MOBILE NETWORKS

1. Does your entity have faculties to regulate (establish) call termination interconnection charges over mobile networks?
 - a. Yes.
 - b. No.
2. When was the last time you regulated (established) call termination interconnection charges over mobile networks?
 - a. Never been regulated (established).
 - b. Between 2014 and 2015.
 - c. Between 2010 and 2013.

- d. Between 2005 and 2009.
 - e. Before 2005.
- 3. At that time, were call termination interconnection charges over mobile networks regulated (established) to:
 - a. All mobile service operators.
 - b. Some mobile service operators.
 - c. Only to the mobile service operator with the largest market share.
- 4. With regard to costs of call termination interconnection charges over mobile networks:
 - a. The same cost was established for all operators.
 - b. Different costs were established for each operator or for a group of operators.
- 5. If different interconnection charges were established for each operator or for a group of operators, what variable influenced the decision for such difference? (you may select more than one option):
 - a. Coverage.
 - b. Technology.
 - c. Market share.
 - d. Traffic levels.
 - e. Other (specify): _____
- 6. If appropriate, call origination charges over mobile networks:
 - a. Have the same cost as call termination charges over mobile networks.
 - b. Has a different cost to call termination charges over mobile networks.
 - c. Call origination charges over mobile networks have not been established.
- 7. Do you have mobile virtual network operators (MVNO) in your country?
 - a. Yes.
 - b. No.
- 8. With regard to call termination interconnection charges over mobile networks applicable to mobile virtual network operators (MVNO):
 - a. MVNO have the same call termination charges as mobile network operators acting as hosts.
 - b. MVNO have different call termination charges to those of mobile network operators acting as hosts.
 - c. Call termination charges have not been established for MVNO.
- 9. With regard to costs of approved charges for call termination over mobile networks:
 - a. A gradual adjustment of their respective charges toward the new approved charges (*glide path*) was established to all operators.
 - b. A gradual adjustment of their respective charges toward the new approved charges (*glide path*) was established to some operators. Likewise, an adjustment of their respective charges

toward the new approved charges was established, a single time, to another group of operators.

- c. An adjustment of their respective charges toward the new approved charges was established, a single time, to all operators.
10. What call termination charge modalities over mobile networks were regulated? (you may select more than one option):
- a. For time (payment per minute).
 - b. For capacity (fixed periodic payment).
 - c. Other (specify): _____
11. According to your country's regulations, how often are call termination charges over mobile networks regulated?
- a. No definite term.
 - b. Under three years.
 - c. Between four and six years.
 - d. More than six years.
12. Call termination charges over mobile networks are applicable to:
- a. All types of calls terminating over a mobile network.
 - b. Only local calls terminating over a mobile network.
 - c. Only national calls terminating over a mobile network.
 - d. Only international calls terminating over a mobile network.
 - e. Other types of call (specify): _____
13. For local calls do you apply the *Sender Keeps All* or *Bill and Keep*?
- a. Yes.
 - b. No.
14. Is there the obligation for call termination charges over mobile networks to be established as cost-based?
- a. Yes.
 - b. No.
15. What calculation methodology did you use to determine call termination charges over mobile networks?
- a. Cost model based on information from operating companies (with historical costs).
 - b. Cost model based on information from operating companies (with adjusted costs).
 - c. Cost model based on an efficient company.
 - d. *Price cap*.
 - e. Ramsey prices.
 - f. Efficient component price rule (ECPR).

- g. Return rate.
- h. *Retail minus*.
- i. International comparison (*benchmarking*).
- j. Referential competition (*yardstick competition*).
- k. Other (specify): _____

16. In case a cost model is used to determine call termination charges over mobile networks, select as appropriate:

Type of Cost Model	LRIC +	Pure LRIC	Other (specify): _____
Cost Estimate Method	<i>top-down</i> model	<i>bottom-up</i> model	Other (specify): _____
Network Design	<i>scorched earth</i>	<i>scorched node</i>	Other (specify): _____
Spectrum Costs	<i>Included</i>	<i>Not included</i>	Included only in some cases (specify): _____

17. With regard to the calculation methodology of call termination charges over mobile networks, taking into consideration cost models:

- a. The model considers subadditivity of costs (cost reduction for call termination) for the provision of several services through the same network.
- b. The model considers a one-time provision of call termination over mobile networks.

18. What is (what are) the call termination charge(s) over mobile networks in force in your country?