

PCC.I/DEC. 224 (XXVI-15) ¹

**SURVEY ON THE IMPLEMENTATION STATUS OF REGULATIONS RELATED TO IP
INTERCONNECTION**

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

DECIDES:

1. To request the Member States to complete the survey attached in the Annex to this Decision, until the XXVII Meeting of the PCC.I, in order to gather information about the implementation and level of progress of regulations related to IP interconnection in the Member States.
2. To designate the Rapporteurship on Internet: ecosystem and international connectivity, as the responsible for the compilation of the information from the survey results.
3. To instruct the Rapporteurship on Internet: ecosystem and international connectivity, to present the survey results during the XXVIII meeting of PCC.I.

ANNEX TO DECISION PCC.I/DEC. 224 (XXVI-15)

**SURVEY ON THE IMPLEMENTATION STATUS OF REGULATIONS RELATED TO IP
INTERCONNECTION**

Country/Administration:
Name of who completes the survey:
Entity/Institution:
Contact data:
Telephone:
E-mail:

Please answer the following questions:

1. How many IXPs does your country have?

2. What is the nature of the entity that manages the IXPs in your country?
 - ☐ Private
 - ☐ State-owned
 - ☐ Private and State-owned
3. If this is the case, please indicate the number of Private IXPs and State-owned IXPs,
 - Number of Private IXPs: _____
 - Number of State-owned IXPs: _____
 - Number of Private and State-owned IXPs: _____

¹ CCP.I-TIC/doc. 3458/15 rev.1

4. Are IXPs regulated in your country?
- ☐ Yes. Regulatory reference: _____
 - ☐ No. (Go to Question 8)
5. Indicate if they can interconnect with IXPs **directly**:
- ☐ Companies that provide fixed telephony and/or mobile and/or carrier services.
 - ☐ Companies offering Value Added Services that are Internet Service Providers (ISPs).
 - ☐ Other. Please specify _____
6. Which of the following aspects are **regulated** with respect to the interconnection that takes place in your country's IXPs?
- ☐ Guarantee of neutral, equal and non-discriminatory access,
 - ☐ Membership or entry rates or payments to the IXP,
 - ☐ Operating rates or payments,
 - ☐ Quality of service,
 - ☐ Other, _____
7. Which of the following aspects are **supervised** with respect to the interconnection that takes place in your country's IXPs?
- ☐ Guarantee of neutral, equal and non-discriminatory access,
 - ☐ Membership or entry rates or payments to the IXP,
 - ☐ Operating rates or payments,
 - ☐ Quality of service,
 - ☐ Other, _____
8. How much traffic went through IXPs during 2014 (January to December)?
- Amount in TB (terabytes): _____
 - Compared to total national Internet traffic, how much of this traffic (percentage-wise) is exchanged in your country's IXPs? _____
 - Compared to total Internet traffic (national and international), how much of this traffic (percentage-wise) is exchanged in your country's IXPs? _____

Questions about the market and the status of operator networks

9. Is there a dominant player in the following markets? Please indicate the dominant operator and its market quota as a percentage
- | | | | |
|------------------------|-------|----------------------------|-------|
| Fixed voice services: | _____ | Market quota (percentage): | _____ |
| Mobile voice services: | _____ | Market quota (percentage): | _____ |
| Internet access: | _____ | Market quota (percentage): | _____ |
| Pay TV: | _____ | Market quota (percentage): | _____ |
10. What is the percentage of operators (compared to the total market) who offer their services through NGN networks?
- _____
11. What are the main services that companies possessing NGN networks sell in your markets?
- _____

II – IP INTERCONNECTION for voice services

12. Does your country regulate the interconnection of (traditional) voice services?

- ☐ Yes. Please refer to regulation: _____
- ☐ No. Please indicate if it is being planned: _____
-

13. Is IP interconnection allowed?

- ☐ Yes. Please refer to regulation: _____
- ☐ No. Please refer to regulation: (for example, it is only allowed via SS7)

14. Does your country have regulations governing IP interconnection for voice services?

- ☐ Yes. Please refer to regulation: _____
(Please answer questions 15 to 25)
- ☐ No. (Please answer questions 26 to 28)

Specific questions if the country has regulations on IP interconnection for voice services

15. Which aspects that make reference to IP interconnection for voice services are taken into account in the regulations?

- ☐ Quality of Service
- ☐ Transition and interoperability scenarios
- ☐ Signaling
- ☐ Rates
- ☐ Location of interconnection points
- ☐ Emergency communications
- ☐ Reciprocity of conditions regarding interconnection between networks
- ☐ Other, _____

16. How many companies to date are interconnected at IP level for voice services under these regulations?

17. If this is the case, which were the criteria to determine the number and location of IP Interconnection Points for voice services?

18. If this is the case, which are the main considerations in your country with respect to IP interconnection signaling for voice services?

19. Specify all signaling protocols established in your country regulations with respect to IP interconnection for voice services.

20. If this is the case, which are the main quality parameters in your country regulations with respect to IP interconnection for voice services?

21. If this is the case, what is the minimum capacity (please specify it in Mbps or Gbps) required for the IP interconnection link between two companies operating in your country?

22. Please indicate if the IP interconnection link is allowed:

- ☐ Through physical media only (for example, using fiber optics) or radio frequencies.
- ☐ Through VPN (Virtual Private Network) links only.
- ☐ Physical or virtual media.

23. In case both operators fail to reach an IP interconnection agreement, is there any procedure to resolve such cases? _____.

If this is the case, please give details, indicating the entity resolves the matter and issues the final decision to enable IP interconnection. _____

24. If this is the case, what are "*essential facilities*" regarding IP interconnection for voice services?

25. Please give detailed wholesale prices and rates, if applicable, between the operators that are party to IP interconnection for voice services.

Specific questions if the country does not have regulations on IP interconnection for voice services

26. With respect to the importance of IP interconnection for voice services, what is the Agenda your country has planned in this regard? Has a date been scheduled to work on the matter and establish regulatory specifications or modifications?

27. Considering that your country does not have specific regulations governing IP interconnection for voice services: What would be the procedure be if two companies are applying for IP interconnection?

28. Does your organization deem it appropriate to reformulate or adopt new cost and rate models that are applicable to IP interconnection for voice services? Please detail the concept and methodology of the model.

Questions about the IP interconnection market in general

29. How many operators are interconnected at the IP level for voice (VoIP) services in your country? What is the signaling protocol that is implemented?

30. What other technologies and/or specific services should be taken into account for the specifications of a scenario regarding IP interconnection for voice services?

31. Has your country carried out a study/report on the subject of IP interconnection for voice services?

- ☐ Yes. Please refer to: _____
- ☐ No

32. What you think are the main issues that must be addressed by regulations with respect to IP interconnection for voice services?

- ☐ Quality of Service
- ☐ Transition and interoperability scenarios
- ☐ Signaling
- ☐ Rates
- ☐ Location of interconnection points
- ☐ Emergency communications
- ☐ Reciprocity of conditions regarding interconnection between networks
- ☐ Other, _____