ANACOM AUTORIDADE NACIONAL DE COMUNICAÇÕES

WHOLESALE MARKET FOR CALL TERMINATION ON PUBLIC TELEPHONE NETWORKS PROVIDED AT A FIXED LOCATION

– Definition of the relevant market, assessment of SMP and imposition, maintenance, amendment or withdrawal of regulatory obligations –

– Final Decision –

Public Version

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ANACOM AUTORIDADE NACIONAL DE COMUNICAÇÕES

Contents

1. Introduction

1.1. Findings of the market analysis conducted in 2004

By determination of 8 July 2004[1], the Management Board of Autoridade Nacional das Comunicações (ANACOM) approved the definition of wholesale markets for call origination on the public telephone network provided at a fixed location (market 8 of European Commission (EC) Recommendation 2003/311/EC[2], of 11 February), and for call termination on individual public telephone networks provided at a fixed location (market 9 of the same Recommendation), as well as the corresponding market analysis and identification of operators with Significant Market Power (SMP).

In this scope, the analysis conducted by ANACOM concluded that the relevant market corresponded to the market for call termination on individual public telephone networks provided at a fixed location, and that each market corresponded to the geographic coverage of each termination network.

Companies integrating at the time ex-Grupo Portugal Telecom[3], and which at present correspond to MEO – Serviços de Comunicações e Multimédia, S.A. (MEO), as well as all other fixed network operators active in the market for call termination on individual public telephone networks provided at a fixed location, were found to have SMP.

Determination of 17 December 2004[4] approved obligations to be imposed on the referred market, as shown in tables below.

[1] http://www.anacom.pt/render.jsp?categoryId=227146

[2] http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2003:114:0045:0049:PT:PDF.

[3] At the time the first market analysis was conducted, Grupo PT included PT Comunicações S.A. (PTC), PT Prime - Soluções Empresariais de Telecomunicações e Sistemas, S.A. (PT Prime) and TMN – Telecomunicações Móveis Nacionais, S.A. (TMN).

[4] http://www.anacom.pt/render.jsp?contentId=409804

Table 1 – Obligations imposed on ex-Grupo PT, as operator with SMP in the wholesale market for call termination on the individual public telephone network provided at a fixed location

Obligation for transparency in the publication of information, including reference proposals	Obligation for non-discrimination in the offer of access and interconnection and respective provision of information	Obligation for accounting separation regarding specific activities related to access and/or interconnection	Obligation to meet reasonable requests for access	Obligation for price control and cost accounting
▪ Obligation to publish a reference offer (RO); ▪ Obligation to publish prices, terms and conditions; ▪ Obligation to publish technical information; ▪ Obligation to publish information on quality of service	▪ Obligation not to unduly discriminate in the provision of access to the network, including the provision of a flat-rate interconnection offer	▪ Costing system and accounting separation	▪ Obligation to provide network access under fair and reasonable conditions to operators of public electronic communications networks - obligation to meet reasonable requests for network access	▪ Obligation to establish prices on the basis of costs and price control

Source: ANACOM determination of 17.12.2004

Table 2 – Obligations imposed on other operators with SMP in the market for call termination on individual public telephone networks provided at a fixed location

Obligation for transparency in the publication of information, including reference proposals	Obligation for non-discrimination in the offer of access and interconnection and respective provision of information	Obligation for accounting separation regarding specific activities related to access and/or interconnection	Obligation to meet reasonable requests for access	Obligation for price control and cost accounting
▪ Not applicable	▪ Not applicable	▪ Not applicable	▪ Obligation to provide network access under fair and reasonable conditions to operators of public electronic communications networks	▪ Price control

Source: ANACOM determination of 17.12.2004

1.2. EC Recommendation and market analysis procedure

On 9 October 2014, the EC published a reviewed Recommendation on relevant markets - Recommendation 2014/710/EU[5], which replaces Commission Recommendation 2007/879/EC[6], which on its turn replaced Recommendation 2003/311/EC, on relevant product and service markets within the electronic communications sector susceptible to *ex ante* regulation, in accordance with Directive 2002/21/EC[7] of the European Parliament and of the Council, on a common regulatory framework for electronic communication networks and services (hereinafter "new Recommendation").

Unlike the previous version of the Recommendation, which provided for seven relevant markets[8], one at retail level[9] and the other six at wholesale level[10], the new Recommendation only includes the following four markets:

- Market 1: Wholesale call termination on individual public telephone networks provided at a fixed location
- Market 2: Wholesale voice call termination on individual mobile networks
- Market 3: a) Wholesale local access provided at a fixed location

  b) Wholesale central access provided at a fixed location for mass-market products
- Market 4: Wholesale high-quality access provided at a fixed location

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[5] Published in the Official Journal of the European Union (OJEU), on 16 October 2014: http://eur-lex.europa.eu/legal-content/PT/TXT/PDF/?uri=CELEX:32014H0710&from=EN (Portuguese version rectified on 14 May 2015, available at http://eur-lex.europa.eu/legal-content/PT/TXT/PDF/?uri=OJ:L:2015:121:FULL&from=PT#bookmark_nopage_009).

[6] Available at http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2007:344:0065:0069:pt:PDF

[7] Available at http://www.anacom.pt/render.jsp?contentId=963124.

[8] Strictly speaking, there were more than seven relevant markets for the purpose of the definition and analysis identified by EC, as markets for call termination on individual public telephone networks, either mobile or fixed, were defined at the level of each telephone network, and as such there could be at least as many relevant markets as individual public telephone networks.

[9] Market 1: Access to the public telephone network at a fixed location for residential and non-residential customers.

[10] As follows:

- Market 2: Call origination on the public telephone network provided at a fixed location;
- Market 3: Call termination on individual public telephone networks provided at a fixed location;
- Market 4: Wholesale network infrastructure access at a fixed location;
- Market 5: Wholesale broadband access;
- Market 6: Wholesale terminating segments of leased lines; and
- Market 7: Voice call termination on individual mobile networks.

Markets currently under analysis correspond to current markets 1, which on their turn corresponded to market 3 of Recommendation 2007/879/EC and to market 9 of Recommendation 2003/311/EC.

Just like former versions of the Recommendation, the current one is accompanied by an "Explanatory Note"[11], where EC justifies the definition of new markets.

Law No. 5/2004[12], of 10 February, (hereinafter Electronic Communications Law - ECL)[13], approved the legal regime applicable to electronic communications networks and services and to associated services, and defines the assignments of the National Regulatory Authority (NRA) in this field.

It is incumbent on the NRA, ANACOM, to define and analyse relevant markets, to identify companies with SMP and to determine suitable measures in respect of companies providing electronic communications networks and services (article 18 of ECL).

This procedure takes place according to the following stages (articles 55 to 61 of ECL)[14]:

- Definition of relevant markets (article 58 of ECL)

  The NRA is charged with defining the relevant product and service markets within the electronic communications sector, including the relevant geographic markets, in accordance with the principles of competition law.

  In the course of the definition of relevant markets, the NRA, having regard to national circumstances, must take due account of the Recommendation as well as of EC Guidelines[15] for market analysis and assessment of significant market power

[11] "Explanatory Note" available at https://ec.europa.eu/digital-agenda/en/news/explanatory-note-accompanying-commission-recommendation-relevant-product-and-service-markets (English version).

[12] As amended and republished by Law No. 51/2011, of 13 September, and subsequently amended by Law No. 10/2013, of 28 January (articles 39, 52, 94 and 113, and addition of article 52-A); by Law No. 42/2013, of 3 July (articles 45 and 113), by Decree-Law No. 35/2014, of 7 March (repeal of article 124), by Law No. 82-B/2014, of 31 December (article 106) and by Law No. 127/2015, of 3 September (article 106). Available at http://www.anacom.pt/render.jsp?contentId=930940#.VtV4RU-O51N.

[13] This statutory instrument transposes to the national legal order Directives 2002/19/EC ("Access" Directive), 2002/20/EC ("Authorization" Directive) and 2002/21/EC (Framework Directive), all of the European Parliament and of the Council of 7 March, amended by Directive 2009/140/EC, of the European Parliament and of the Council, of 25 November, Directive 2002/22/EC ("Universal Service" Directive) of the European Parliament and of the Council, of 7 March, as amended by Directive 2009/136/EC, of the European Parliament and of the Council, of 25 November, and Commission Directive 2002/77/EC (on competition in markets for electronic communications networks and services) of 16 September.

[14] Cf. Framework Directive, articles 7 and 14 to 16.

[15] Available at http://www.anacom.pt/render.jsp?contentId=965114.

under the Community regulatory framework for electronic communications networks and services (hereinafter referred to as the "Guidelines").

- Analysis of relevant markets (article 59 of ECL)

  The NRA is charged with carrying out an analysis of the relevant markets defined pursuant to the preceding point, taking the Guidelines into account.

  The market analysis procedure aims to determine whether or not a relevant market is effectively competitive. No effective competition exists where it is possible to identify companies with SMP[16].

  A company is deemed to have SMP where, either individually[17] or jointly with others, it enjoys a position equivalent to dominance, that is to say, a position of economic strength affording it the power to behave to an appreciable extent independently of competitors, customers and consumers.

- Imposition, maintenance, amendment or withdrawal of regulatory obligations (article 66 of ECL)

  Where ANACOM finds that a market is effectively competitive, it must refrain from imposing any specific regulatory obligation, and where such obligations exist, they must be withdrawn.

  Where ANACOM determines that a relevant market is not effectively competitive, it must impose on companies with SMP on that market the appropriate specific regulatory obligations or maintain or amend such obligations where they already exist (article 59).

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[16] Also according to the Guidelines (§24), "*Under the regulatory framework, markets will be defined and SMP will be assessed using the same methodologies as under competition law.* (...) *and the assessment of effective competition by NRAs should be consistent with competition case-law and practice. To ensure such consistency, these guidelines are based on (1) existing case-law of the Court of First Instance and the European Court of Justice concerning market definition and the notion of dominant position within the meaning of Article 82 of the EC Treaty and Article 2 of the Merger Control Regulation*".

[17] Note that, according to the judgement of the European Court of Justice, of 12 July 1984, Hydrotherm, the term undertaking "*must be understood as designating an economic unit for the purpose of the subject-matter of the agreement in question even if in law that economic unit consists of several persons, natural or legal*".

According to article 3, paragraphs 1 and 2, of Law No. 19/2012, of 8 May (which approves the competition act), "*1 - The term undertaking, for the purposes of this law, shall be deemed to be any entity that has an economic activity comprising the supply of goods or services in a specific market, irrespective of its legal status or means of financing. 2 - A group of undertakings is deemed to be a single undertaking, even if the undertakings themselves are legally separate entities, where such undertakings make up an economic unit or maintain interdependence ties deriving specifically from the following: a) The undertaking so defined has a majority of the share capital; b) It has more than half of the voting rights conferred by the share capital; c) It has the power to appoint more than half of the members of the board of directors or the supervisory board; d) It has the necessary powers to manage the businesses of the group and of each of its undertakings*."

Obligations imposed (cfr. paragraph 3 of article 55):

- Must be adjusted to the identified problem, proportional and justified in the light of regulatory objectives laid down in article 5 of ECL;
- Must be objectively justified as regards networks, services or infrastructures concerned;
- May not originate an undue discrimination as regards any entity;
- Must be transparent relatively to the intended purposes.

1.2.1. Draft decision approved in March 2013

On 1 March 2013, ANACOM approved a draft decision (DD) on the definition, assessment of SMP and imposition, maintenance, amendment or withdrawal of regulatory obligations in the wholesale market for call termination on the public telephone network provided at a fixed location. This DD was submitted to the general consultation procedure laid down in article 8 of ECL, as well as to the prior hearing of interested parties, in accordance with articles 100 and 101 of the Administrative Procedure Code (APC) in force at the time[18], in both cases for a period of 40 working days, and an opinion on this draft decision was likewise sought from Autoridade da Concorrência (AdC - Portuguese Competition Authority), in accordance with article 61 of ECL.

This DD concluded, just like the analysis now conducted, that all operators providing voice call termination on individual public telephone networks at a fixed location have SMP in the provision of that service, whereby several obligations were imposed, among which the price control obligation stands out, relying at the time of a benchmark of “pure” LRIC prices, taking into consideration that results of the costing model developed for Portugal were not yet known.

Having the consultation been completed, AdC issued its opinion, having declared to generally agree with ANACOM’s DD. AdC specifically refers that it did not oppose to the definition of relevant product and geographic markets, nor to SMP assessments performed by ANACOM in the referred DD.

It further referred that it agreed with the removal of the price asymmetry between companies of ex-Grupo PT and other operators as well as with the choice of the “pure”

[18] Decree-Law No. 442/91, statutory instrument repealed by Decree-Law No. 4/2015, of 7 January.

long-run incremental cost (LRIC) costing methodology for the determination of the interconnection price.

In the scope of the consultation procedure and the hearing of interested parties, ANACOM received 9 responses, which include a response from a consumer association and 8 operators.

Having comments been analysed, the report on ANACOM's draft decision (DD) was approved on 12.07.2013, consisting of a summary of contributions received and the Regulatory Authority's views on the subject.

On the same date, a draft final decision was adopted and notified to EC, under paragraph 1 of article 57 of ECL.

EC assessed the draft decision concerned on 12.08.2013, having raised serious concerns as regards its compliance with EU legislation, believing that it raised barriers to the single market, mainly because operators with SMP had not been imposed an IP interconnection access obligation.

Following the letter with serious concerns issued by EC, Hélder Vasconcelos, a member of the Management Board, decided on 14.08.2013[19], under the power conferred by paragraph 3 of article 29 of ANACOM Statutes in force at the time, in annex to Decree-Law No. 309/2001, of 7 December, and standing in for the Chairperson of the Management Board, under articles 14, 15 and 16 of Determination No. 810/2012, of 31 May, published in Series II of the Official Gazette No. 117, of 19 June 2012:

a. "*To withdraw the draft decision on the definition of the wholesale market for call termination on the public telephone network provided at a fixed location, assessment of SMP in that market and imposition, maintenance, amendment or withdrawal of obligations, approved by determination of 12 July 2013, pursuant to paragraph 6 of article 57-A of Law No. 5/2004, of 10 February, as amended and republished by Law No. 51/2011, of 13 September*;

b. *To notify the preceding point to the European Commission;*

c. *To submit this decision to the ratification of the Management Board at the first regular meeting to be held."*

[19] Available at http://www.anacom.pt/render.jsp?contentId=1170655.

The decision referred to in the preceding point was ratified at the meeting of the Management Board of 22.08.2013[20].

1.2.2. Approval of provisional and urgent measures

In the light of the above, and whereas:

a. Urgent action was required to safeguard competition and protect user interests;

b. The adoption of price control measures and other regulatory measures must rely on a market analysis procedure, in order to be imposed on operators with SMP;

c. Pursuant to ECL (article 6) and the Framework Directive, ANACOM is required to take utmost account of EC Recommendations, in the scope of the objective of harmonisation at European level and development of the internal market;

d. In its letter of 12.08.2013, EC required the adoption of provisional measures;

e. Measures considered were proportional, given the need to remedy identified problems, the existence of operators with SMP, and damage which would result from the failure to apply them, namely on account of the predictable delay to which the approval of a final decision on this matter would be subject;

f. A national and Community legal framework existed for the immediate adoption of provisional and urgent measures, which did not require the general consultation procedure provided for in article 8 of ECL, the prior hearing of stakeholders, provided for in articles 100 *et seq* of APC, or the notification of EC, under article 57 of ECL and article 7 of the Framework Directive;

ANACOM's Management Board approved on 27.08.2013[21], under article 9 of ECL, with immediate effect, provisional and urgent measures set out in the document "*Wholesale market for call termination on the public telephone network at a fixed location - Definition of product markets and geographic markets, assessment of SMP and imposition, maintenance or suppression of regulatory obligations*", and determined that these measures would remain in force until a new procedure of market definition and analysis, and of imposition of regulatory obligations on the wholesale market for call termination on

[20] Available at http://www.anacom.pt/render.jsp?contentId=1171321.

[21] Available at http://www.anacom.pt/render.jsp?contentId=1171704.

the public telephone network at a fixed location, was concluded, including the respective notification to EC pursuant to article 57 of ECL and ANACOM's final decision.

On 27.11.2013[22], having found that the implementation of the price control obligation by some of the operators with SMP in wholesale markets for call termination at a fixed location was compromising objectives underlying its determination, namely the need to remove price asymmetry between several operators with SMP in markets concerned, ANACOM approved, with effect as from 01.12.2013, provisional and urgent measures included in the document "*Provisional and urgent measures on the implementation of the price control obligation in wholesale markets for call termination on the public telephone network at a fixed location*".

As far as other matters were concerned, provisional and urgent measures set out in the document "*Wholesale market for call termination on the public telephone network at a fixed location - Definition of product markets and geographic markets, assessment of SMP and imposition, maintenance or suppression of regulatory obligations*", approved by ANACOM on 27.08.2013, were maintained.

ANACOM determined also that these new provisional and urgent measures would remain in force until a new procedure of market definition and analysis, and of imposition of regulatory obligations on the wholesale market for call termination on the public telephone network at a fixed location, was concluded, including the respective notification to EC pursuant to article 57 of ECL and ANACOM's final decision.

1.2.3. Draft decision approved in July 2014

Following the above procedures, ANACOM approved on 10 July 2014 a new DD which focused at the time on the then market 3, which was submitted to the general consultation procedure laid down in article 8 of ECL, as well as to the prior hearing of stakeholders, in accordance with articles 100 and 101 of the APC in force at the time. An opinion was likewise sought from AdC in accordance with article 61 of ECL.

In the scope of that DD, AdC declared to generally agree with its contents, specifically referring that it agreed with the definition of relevant product and geographic markets, mentioning that the maintenance/imposition of obligations in this wholesale market was fully justified. In the scope of the consultation procedure and the hearing of stakeholders,

[22] Available at http://www.anacom.pt/render.jsp?contentId=1182350.

6 timely responses were received, which include a response from a consumer association. A summary and the respective analysis of contributions received, which were taken into account in the drafting of the DD which preceded the final draft decision notified to EC, are included in a separate report published at the same time as the DD of 25.05.2016.

1.2.4. Current market analysis

Taking into account some issues raised in the scope of the prior hearing and public consultation procedure on the DD of July 2014, namely on price caps set for TDM interconnection and issues on network migration to all-IP, ANACOM deemed it necessary to publish a new DD.

Likewise, the period of time since the publication of the previous DD forced the introduction of some modifications so as to reflect changes occurred in markets in the meantime, whereby, just like in the scope of the decision taken on wholesale markets for voice call termination on mobile networks (ANACOM's decision of 06.08.2015), ANACOM proposed amendments as far as obligations were concerned, namely the withdrawal of the accounting separation and cost accounting obligation.

This market analysis, involving the market definition process, competition analysis and identification of *ex ante* regulatory obligations applicable to operators with SMP, maintains in its essence the definition of product market and geographic markets and competition analysis which had already been set out in provisional and urgent measures. Likewise, except for the non discrimination, accounting separation and cost accounting obligations, as well as for the lifting of some obligations in the scope of the termination of calls originated outside the European Economic Area (EEA), regulatory obligations imposed on operators with SMP which had been included in the document that integrates provisional and urgent measures, as amended by new provisional and urgent measures concerning the price control obligation, have been maintained.

The distinctive features of this document, compared to provisional and urgent measures approved on 27.08.2013 and 27.11.2013, which are currently in force, concern in particular the obligation to provide network access, as regards access to IP interconnection, and obligations for non-discrimination (which now apply to all operators and not only to MEO), cost accounting and accounting separation (which no longer apply to MEO), and the lifting of obligations for non-discrimination, price control, and in part, for

transparency, as regards the termination of calls originated outside the European Economic Area (EEA). Changes with respect to the specification of the price control obligation also stand out, intended to enable an appropriate transition to an IP interconnection structure.

In the scope of network access and non-discrimination obligations, due note was taken of comments made by EC in its letter of 12.08.2013, on the process PT/2013/1491, in which EC opened an investigation procedure (Phase II):

"ANACOM does not intend to impose an access obligation on SMP operators with regard to IP interconnection (which is part of the market defined), explaining that such an access obligation is not yet necessary. As there are still several operators that rely on traditional interconnection and are currently migrating towards an IP interconnection network, ANACOM considers that there is a need for a proper environment allowing for this migration to happen. Therefore, it proposes to apply an additional obligation on PTC, requiring the submission of a technical offer for IP access and interconnection within a period of 12 months after the implementation of the currently proposed decision, after which ANACOM will assess the need to impose further obligations.

While recognising that terminating operators in general have an economic interest to interconnect, the Commission is of the view that, in the absence of an explicitly imposed access obligation, even a general interconnection obligation that might arise from the Portuguese legislation would not allow for a swift resolution of eventual access problems compared to a more specific access obligation imposed as a result of a market analysis.

Access problems could, for example, occur at an early stage of IP interconnection development, in particular in relationships where traffic is not balanced and where one of the parties could absorb higher costs of termination services (including transit via a third network) without the need to increase retail prices. Therefore, operators could delay access to their network in an attempt to eliminate direct competitors of a similar size from the market.

In any event, as no non-discrimination obligation is imposed on the alternative operators, the Commission is very concerned by the fact that there is no safeguard in place which would prevent SMP operators to apply different terms and conditions on interconnecting operators. As a result, the Commission is of the view that the lack of an access obligation for IP interconnection is neither technologically neutral, as provided for in Article 8(1) of the Framework Directive, nor conducive to ensuring that there is no distortion or restriction

of competition in wholesale markets for voice call termination at fixed location, as is required under Article 8(2) (b) of the Framework Directive."

It is also highlighted that this document also reflects changes which derive from the fact that the price cap defined for call termination on public networks at a fixed location is now determined on the basis of results of the costing model developed for this purpose of by ANACOM.

It is noted that the determination of the price of call termination on public networks provided at a fixed location - set since October 2013 on the basis of a benchmark of prices of countries which had at the time notified "pure" LRIC prices to EC, and which from now on is established according to the results of the costing model developed in the meantime by Analysis Mason for ANACOM - was the subject of a public consultation and a prior hearing of stakeholders in June 2014. Given that the model produces results for several years, the applicable price cap for the wholesale market for voice call termination at a fixed location is now set according to results of the "pure" LRIC costing model, for 2016 and 2017, on the basis of 2012 prices, updated to stay in line with (existing and foreseen) inflation data, as referred in the report of the public consultation and prior hearing procedures concerning the draft decision on the fixed termination costing model, whereby the value under consideration is referred to in chapter 5.3.4.5 of this document.

This market analysis was submitted to the general consultation procedure laid down in article 8 of ECL, as well as to the prior hearing of stakeholders, in accordance with articles 121 and 122 of the Administrative Procedure Code (APC), in both cases for a period of 30 working days, as well as to the opinion of Autoridade da Concorrência (AdC), pursuant to article 61 of ECL.

By letter dated 13.07.2016, AdC issued its opinion, having declared to generally agree with ANACOM's DD. AdC specifically refers that it does not oppose the definition of relevant product and geographic markets, or the assessment of SMP, and mentions that regulatory obligations imposed on companies with SMP are appropriate.

In the scope of the consultation procedure and the prior hearing of stakeholders, ANACOM received 5 responses on behalf of eight bodies. Having comments been analysed, the report on the prior hearing and public consultation procedures was drawn up, consisting of a summary of contributions received and the Regulatory Authority's views on the subject. The report, which already integrated the draft final decision notified to the European Commission, is deemed to be an integral part of this decision.

By determination of 27 October 2016, ANACOM approved the referred prior hearing and public consultation report, as well as a draft final decision on the wholesale market for call termination on public telephone networks provided at a fixed location. On the same date, approval was granted also to a draft decision on the fixed termination costing model, developed in order to establish the cost of the service of call termination on the public telephone network provided at a fixed location.

The same determination approved the notification of these measures to EC, BEREC and NRAs of other Member States, pursuant to and for the purpose of paragraph 1 of article 57 of ECL, which took place on 28.10.2016.

On 29.11.2015, through letter C(2016) 7887 final, EC submitted to ANACOM its comments, pursuant to article 7, paragraph 3, of Directive 2002/21/EC.

In this context, EC presented comments on the "*delineation between the transit and the fixed voice call termination markets*" and on the "*need to update the BU-LRIC model*".

In the scope of the first subject, EC refers that the "*inclusion of double transit termination in the relevant termination markets and setting of a price cap could* (...) *impede the provision of transit services by alternative operators on a market which ANACOM declared competitive in 2005.* (...) *Thus, ANACOM's proposal to set price caps for termination at national level leads, prima facie, to the regulation of a market segment which is competitive. However, the Commission notes that even if double transit termination is included in the definition of the relevant termination market and subsequently price regulated at the currently proposed level, this may have no or a very limited regulatory impact. Given the presence of transit operators at the national point of interconnection, which could convey traffic to the regional level, the Commission considers it unlikely that commercial agreements fail in this competitive market segment. This would in turn imply that commercial rates would prevail and the proposed safety cap of 0.1642 €c/minute, which is almost three times higher than the BU-LRIC rate, would de facto not apply. Moreover, according to ANACOM, only […]% of the whole traffic is terminated at national (double transit) level, which will in any case be much further reduced once IP interconnection has been fully implemented.*"

EC goes on to say that it "*decided not to challenge the currently notified market definitions, as it believes that the incorrect delineation between termination and transit would have no or a very limited effect on the regulatory outcome of the presently notified draft measures.*"

Notwithstanding, "*the Commission urges ANACOM to review the definition of the wholesale fixed call termination markets as soon as possible and to set an exact demarcation point between termination and transit markets, in recognition of the state of competition on transit routes beyond the regional/local point of interconnection. In the meantime, the Commission urges ANACOM to lift in its final measure the safety caps imposed on tariffs for termination at national level*".

Comments made by EC were analysed and taken into consideration (*vide* sections 2.3.5 and 5.3.4.5), leading to an amendment in the measure proposed as regards the price cap applicable to the double transit termination price.

1.3. Facts that affected the market under analysis

Since mid-2004, when above-mentioned analyses were published, the following events took place in the electronic communications market, affecting markets under analysis:

- The purchase in 2007 by Sonaecom – Serviços de Comunicações, S. A.[23] of the sole control of a set of assets that corresponds to the residential and Small Office Home Office (SOHO) segment of the retail fixed network communications business (voice and Internet) of OniTelecom – Infocomunicações, S. A. (ONITELECOM);
- The spin-off of PT Multimédia – Serviços de Telecomunicações e Multimédia, SGPS, S.A., (ZON Multimédia – Serviços de Telecomunicações e Multimédia, SGPS, S.A.) from Portugal Telecom, SGPS, S.A., which took place on 7 November 2007;
- The purchase in 2008 by ZON Multimédia of the sole control of Bragatel - Companhia de Televisão por Cabo de Braga, S.A., Pluricanal Leiria – Televisão por Cabo, S.A., Pluricanal Santarém – Televisão por Cabo, S.A. and TVTEL Comunicações, S.A.;
- The definition by the Government, in July 2008, of strategic guidelines for the development of Next Generation Networks (NGN) and the implementation of new policies arising therefrom, namely the conclusion in January 2009 of a protocol between the Government and several operators, including PT Comunicações, S. A. (PTC), ZON TV Cabo Portugal, S.A. (ZON) and

[23] Which on 1.07.2010 was converted into Optimus – Comunicações, S. A. (Optimus).

Sonaecom in a first phase, and after that, DST/DSTELECOM and ONITELECOM. This initiative resulted in investments in a multi-services platform, which despite being more significant at the level of access networks, in a forward-looking perspective is likely also to affect the core network.

- By the end of 2010, Optimus – Telecomunicações, S.A. (Optimus) and Vodafone Portugal – Comunicações Pessoais, S.A. (Vodafone) concluded a sharing agreement concerning next generation fibre network infrastructures in the urban areas of Lisbon and Oporto, which extended the commercial offers of both operators in those areas. This agreement had impact at the level of accesses that support the fixed or nomadic telephone using the Voice over Internet Protocol (VoIP) technology, as a part of triple play service offers;
- Several operators have been developing since 2010 their integrated Internet Protocol (IP) multi-service network, some of them having shown in the respective reports and accounts that they currently hold a fully-integrated IP network, 100%-based on international standards;
- On 5 January 2012, PTC informed ANACOM that, on 29 December 2011, it registered the merger of PT Prime - Soluções Empresariais de Telecomunicações e Sistemas, S. A. (PT Prime) into PTC;
- Autoridade de Concorrência (AdC) issued a decision on 2 August 2013[24], not opposing to the merger operation between Altice, which held the then Cabovisão – Televisão por Cabo, S.A. (Cabovisão) (the company has since changed its corporate name to NOWO Communications, S.A.) and Winreason, S. A., a holding with shares in several companies, among which ONITELECOM;
- AdC issued, on 26.08.2013[25], a decision not opposing the merger between Optimus and ZON, which was subject to conditions and obligations, namely the network sharing agreement concluded between Optimus and Vodafone, to ensure that the latter continues to have access to Optimus' fibre network infrastructure. Further to this decision, OPTIMUS - SGPS, S.A. merged into

[24] Available at http://www.concorrencia.pt/FILES_TMP/2013_19_final_net.pdf

[25] Available at http://www.concorrencia.pt/vPT/Noticias_Eventos/Comunicados/Paginas/Comunicado_AdC_201318.aspx

ZON Multimédia - Serviços de Telecomunicações e Multimédia, SGPS, S.A. (which changed its corporate name to ZON OPTIMUS, SGPS, S.A.).

- On 27 January 2014, TMN – Telecomunicações Móveis Nacionais, S.A. changed its corporate name to MEO – Serviços de Comunicações e Multimédia, S.A.;
- On 16 May 2014, the merger of ZON TV CABO PORTUGAL, S.A. (ZON) into OPTIMUS COMUNICAÇÕES S.A., (OPTIMUS) was registered, the resulting company having been renamed NOS Comunicações S.A. (NOS);
- In July 2014, MEO – Serviços de Comunicações e Multimédia, S.A. and Vodafone concluded an agreement on the sharing of investment in fibre optic network;
- On 29 December 2014, the merger by acquisition of MEO – Serviços de Comunicações e Multimédia, S.A. into PT Comunicações, S.A. was registered, having the company resulting from this merger been renamed MEO – Serviços de Comunicações e Multimédia, S.A. (MEO) as from that date;
- On 25 February 2015, Altice S.A.[26] notified the European Commission that it controlled the Portuguese assets of PT Portugal SGPS (the owner of MEO – Serviços de Comunicações e Multimédia, S.A.). PT Portugal became a wholly-owned subsidiary of Altice on 2 June 2015[27]. In the scope of the European Commission's assessment of the purchase process[28], the non-opposition decision was made conditional upon the sale of its subsidiaries Cabovisão (now NOWO) and ONITELECOM;
- On 12 October 2015, AdC was notified of the merger operation which consisted in the purchase by Cabolink S.à.r.L. (held by the APAX France investment fund) of the exclusive control of Cabovisão- Televisão por Cabo, S.A. (now NOWO Communications, S.A.), Winreason, S.A. and Oni SGPS, S.A., through the purchase of the total shareholding of Cabovisão[29], having that

[26] Available at http://eur-lex.europa.eu/legal-content/PT/TXT/PDF/?uri=OJ:JOC_2015_077_R_0009&from=PT

[27] http://altice.net/wp-content/uploads/2015/06/altice-portugal-telecom-Closing-Announcement-150602.pdf

[28] http://europa.eu/rapid/press-release_IP-15-4805_pt.htm

[29] Available at http://www.concorrencia.pt/vPT/Controlo_de_concentracoes/Decisoes/Paginas/pesquisa.aspx?pNumb=46&yearNot=2015&pag=1&doc=True&est=1

Authority approved a decision not opposing the referred operation on 27 November 2015[30];

- On 20 January 2016, Altice issued a press release announcing the sale of Cabovisão (now NOWO) and Oni to the APAX France fund[31];
- On 26 February 2016, Vodafone invoked its purchase option for the FTTH network of ex-Optimus (in the scope of obligations imposed by AdC to the merger operation between OPTIMUS and ZON), located in the urban areas of Lisbon and Oporto[32];
- On 11 March 2016[33], MEO started the provision of a wholesale commercial fibre optic offer.

Without prejudice to the events listed above, the impact of some of them on specific markets for voice call termination at a fixed location is low or virtually non-existent.

1.3.1. Fixed telephone services and characteristics of the market for call termination on the public telephone network provided at a fixed location

By the end of the first half of 2016, there were 17 bodies qualified to provide the fixed telephone service (FTS), 14 of which were in operation[34]. 5 out of these provided the service exclusively via direct access, one provided the service exclusively via indirect access, and the remaining 8 via both types of access (*vide* Table 3).

Table 3 – FTS providers

	2009	2010	2011	2012	2013	2014	2015	2Q16
Qualified providers	25	25	24	19	19	17	17	17
Active providers	17	17	15	15	15	13	14	14
Providers with direct and indirect access traffic	10	9	9	9	8	8	8	8

[30] http://www.concorrencia.pt/vPT/Noticias_Eventos/Noticias/Paginas/CCENT_2015_46_Dec.aspx?lst=1&pagenr=3&Cat=2015&dat=A+partir+de&txt=Palavra-chave

[31] Available at http://altice.net/wp-content/uploads/2016/01/20160120-ALT-Closing-Cabo-Oni.pdf.

[32] Available at http://www.apdc.pt/Artigo.aspx?channel_id=2C919481-296F-4AA7-986F-614D5D594EEA&content_id=A5C4B6AE-3FF6-4CC4-8F44-5D61B62E1562&lang=pt

[33] https://www.telecom.pt/pt-pt/media/noticias/Paginas/2016/marco/pt_avanca_com_oferta_grossista_para_a_rede_fibra.aspx

[34] Bodies that, according to available statistical information, registered traffic in the period under analysis.

Providers with direct access traffic only	6	7	6	6	7	5	5	5
Providers with indirect access traffic only	1	1	0	0	0	0	1	1

Units: Number of providers
Source: FTS report for the 2nd half of 2016

As regards the nomadic VoIP service[35], there were at the same time 22 providers qualified for the provision of this service, but only 13 were actually in operation[36].

The following table identifies providers to whom numbering resources had been allocated by 31.12.2015 - geographic numbering and nomadic numbering.

Table 4 – Providers of the fixed telephone service and of the nomadic VoIP service with allocated numbering resources

Body	Geographic numbering	Nomadic VoIP numbering
AR Telecom - Acessos e Redes de Telecomunicações, S.A.	√	√
COLT Technology Services, Unipessoal, Lda.	√	
Compatel, Limited		√
Dialoga - Servícios Interactivos, S.A.	√	
G9Telecom, S.A.	√	√
IP Telecom - Serviços de Telecomunicações, S.A.	√	√
MEO - Serviços de Comunicações e Multimédia, S.A.	√	√
NOS Madeira Comunicações, S.A.	√	√
NOS Açores Comunicações, S.A.	√	√
NOS Comunicações, S.A.	√	√
NOWO Communications, S.A. (ex-Cabovisão)	√	
ONITELECOM - Infocomunicações, S.A.	√	√
Orange Business Portugal, S.A.	√	√
OVHHOSTING - Sistemas Informáticos, Unipessoal, Lda.		√
VODAFONE PORTUGAL - Comunicações Pessoais, S.A.	√	
VOIP-IT, Lda.		√
VoIPUNIFY Telecom, Lda.		√
VOXBONE, S.A.		√

Source: ANACOM

At retail level, the penetration rate of main telephone accesses reached, by the end of the first half of 2016, a total of 45.7 accesses per 100 population, the highest record since ANACOM started collecting this information. In more recent years, namely 2014 and 2015, there has been a decrease in the total of accesses relying on the traditional network (analogue and RDIS), which in fact have become a minority, a situation which has been

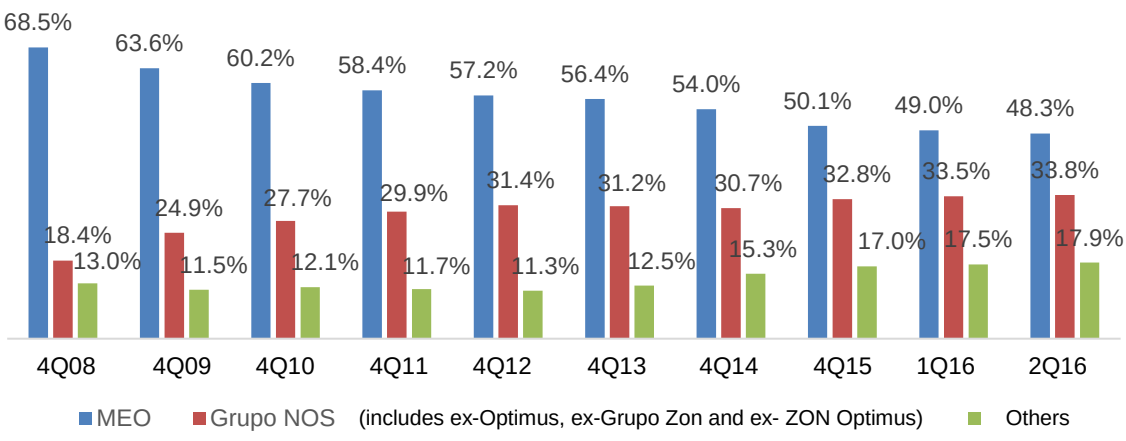
[35] *Vide*: 2.3.2.1 for definition of VoIP.

[36] In addition to these operators, there are also other registered operators who provide voice-over-Internet services, where however the voice signal information relies mainly on computer-to-computer connections, and where the level of quality is based on a “best efforts” principle.

more than compensated by the increase of other accesses, in particular, the number of VoIP accesses.

It must be stressed that alternative providers are chiefly responsible for the increase of the pool of telephone accesses, whereby these providers have registered a gradual increase of their market share, both through wholesale accesses provided by MEO[37], and through the construction of their own networks.

Chart 1 - Evolution of telephone access market shares



Source: ANACOM (FTS report for the 2nd half of 2016)

In parallel, consumers have shown an increasing preference for the purchase of bundled electronic communications services, offers which increasingly include the fixed telephone service. In fact, it is noted that there is a high percentage of customers who contract access to the telephone network at a fixed location in the scope of a bundle of services (88% by the end of 2015).

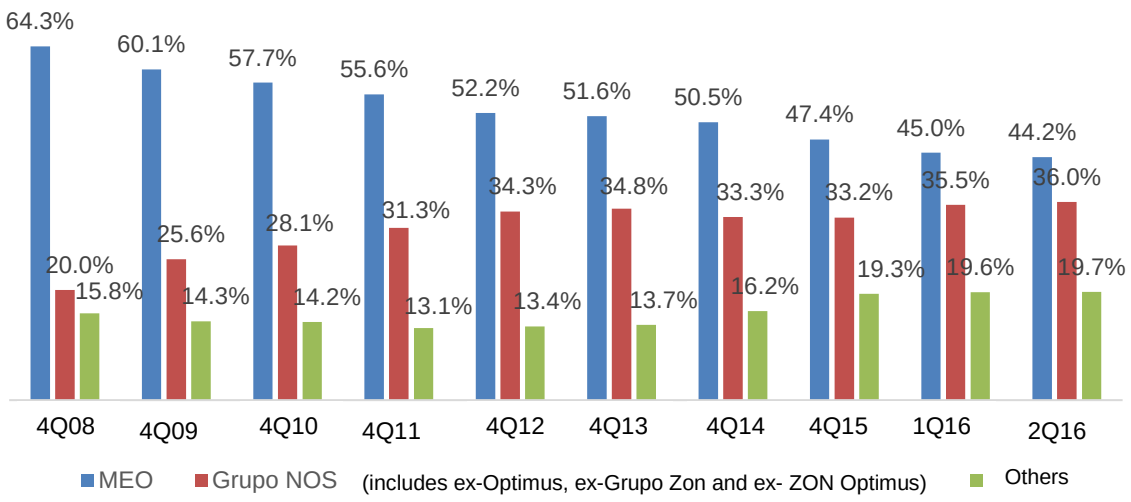
Notwithstanding, there still are around 12% of FTS customers that contract the service on its own, who usually integrate smaller families and usually are elderly people, of lower social classes.

[37] Although MEO integrated Grupo Altice for a part of 2015, together with Onitelecom and NOWO, operators which also provide the fixed telephone service and the corresponding wholesale call termination service provided at a fixed location, bearing in mind that only in June 2015 did they integrate the same group and that in November 2015 the decision not opposing the sale of these two latter companies was issued, it was decided to refer to MEO in separate, including Onitelecom and NOWO in the "others" group. It is noted that the sale of Onitelecom and NOWO to a third party - APAX France - took place in January 2016.

In terms of traffic, the number of minutes originated in providers of the fixed telephone service has decreased, having registered in 2015 a decrease by 15%, a decrease which exceeds the average reduction of the last five years (-6.7%). In 2016, the traffic volume continues to show reductions.

Having analysed the evolution of market shares in terms of voice traffic, measured in minutes, it was found that MEO's share has lost relevance, decreasing to 47.4% by the end of 2015 and to 44.2% by the end of the first half of 2016.

Chart 2 - Market shares of FTS voice traffic (in minutes)



Source: ANACOM (FTS report for the 2nd half of 2016)

As regards traffic originated in mobile networks and terminated on fixed networks, further to a slight decrease between 2009 and 2011, an increase of this traffic has been registered as from 2012 (around 18% to 23% per year).

As far as pricing plans are concerned, most of them integrate some type of free traffic, especially where provided in bundled offers. However, stand alone offers still exist, where traffic is not free and where there is differentiation between calls to the same network or to other networks.

Although there has been a decrease in the use of the fixed telephone service, as referred earlier, a factor which could be influenced by the increase of similar OTT (over the top)

services, which could be more relevant in the case of international calls, this service maintains a considerable importance, the number of total accesses having increased, as well as the percentage of households that still does not have access to the service but intends to subscribe it (according to Marktest, by the end of 2015 around 9.2% of households referred that they would definitely subscribe the service, or they would probably subscribe it, a percentage which has increased since 2010, although the range of households without FTS has gradually been decreasing).

As regards OTT services, it is noted that among persons that live in households with Internet access, when questioned about the services they usually use, around 49% (in the 4th quarter of 2015) refer that they make Internet voice calls (for example via Skype or Viber). This figure, although significant and showing an increasing tendency, does not clearly show how often these services are used, namely by comparison to traditional voice calls. On the other hand, there are significant differences, in terms of quality, between the fixed telephone service and OTT services, whereby it is deemed that they still constrain the prospective evolution of the latter services.

As such, there are no evidences of a relevant substitutability between the provision of the fixed telephone service and the OTT service.

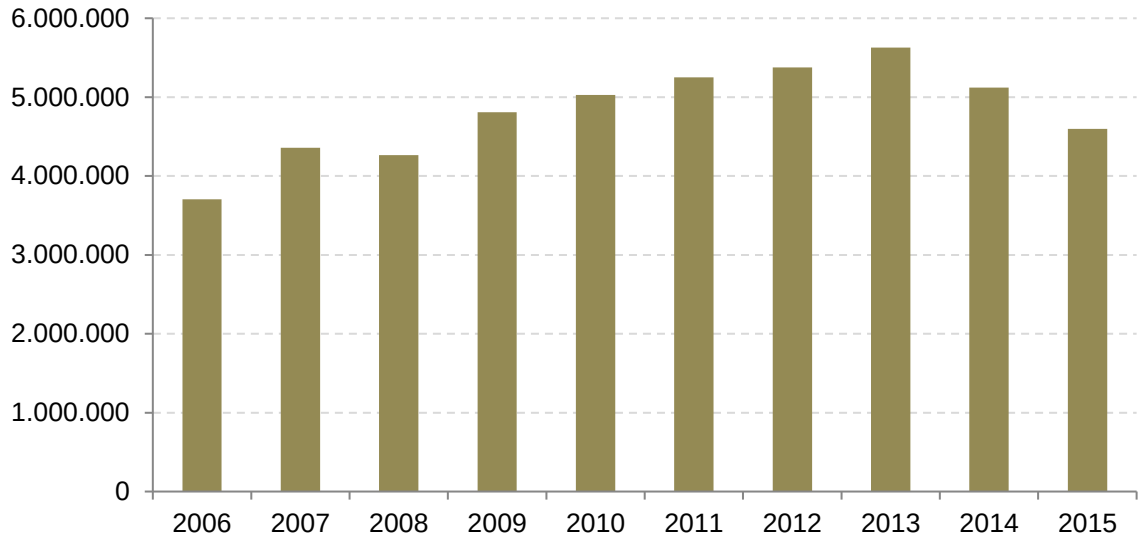
Likewise, it cannot be concluded also that the provision of the mobile telephone service constrains significantly the provision of the fixed telephone service. In fact, by the end of 2015, an important proportion of persons (according to Marktest data) was provided with both types of accesses (fixed and mobile), around 73.9%, whereas 4.9% were provided with fixed access only.

As regards the provision of wholesale call termination, it corresponds to the service whereby an operator terminates, on its own network, a call to a termination point of its network, which was delivered by another operator which whom an interconnection agreement was concluded. As such, by definition, all those who provide the fixed telephone service are providers of call termination at a fixed location. Likewise, it is deemed that in the scope of the provision of VoIP services (including nomadic VoIP), providers concerned supply termination services, enabling the reception of calls on the part of their customers.

The chart below illustrates the evolution of the number of minutes terminated on public telephone networks at a fixed location (including in VoIP networks). Traffic terminated on fixed national networks registered, between 2006 and 2015, as shown in Chart 3, an

increase by 24% at a compound annual growth rate of 2%, notwithstanding a decrease between 2013 and 2015.

Chart 3 – Evolution of the number of minutes terminated on public telephone networks at a fixed location (per 1000 minutes)



Source: ANACOM

Note: Includes traffic estimates associated to the capacity-based interconnection offer provided by ex-PTC. Minutes in the modality of capacity-based interconnection were estimated on the basis, in each year, of the weight of termination in total time-based traffic.

In parallel with the increase of the number of minutes terminated on the public telephone network at a fixed location since the last market analysis in 2004 (increase by 50%), the proportion of traffic terminated on each individual network, in the total of traffic terminated on fixed national networks, has shown a significant change. Chart 4 represents this evolution, which demonstrates the increase in the proportion of traffic terminated on networks of other service providers (OSP) and, consequently, the decrease of the proportion of traffic terminated on MEO on customers of the fixed telephone service.

It is noted, as far as MEO is concerned, that Altice, in 2 June 2015, purchased 100% of the share capital of PT Portugal, SGPS, and MEO integrated since this date the Altice economic group which at the time included also Onitelecom and NOWO (then Cabovisão). Notwithstanding, as referred above, the referred purchase process was accepted by the European Commission provided that Altice sold Onitelecom and NOWO, which occurred in January 2016, further to a decision from AdC not opposing the merger operation whereby Cabolink S.à.r.L. (held by the APAX France fund) purchased the

control of NOWO, Winreason and Oni SGPS, S.A., through the purchase of NOWO's total capital share.

Chart 4 – Proportion of traffic terminated on each operator's individual public telephone network at a fixed location

Beginning of Confidential Information (BCI)

CONFIDENTIAL

End of Confidential Information (ECI) Source: ANACOM

Note: Grupo PT, in 2004, included PTC, PT Prime and TMN.

2. Definition of the wholesale market for call termination on individual public telephone networks provided at a fixed location

Under the Community regulatory framework applicable to electronic communications (*vide* 1.2), which complies with Community competition law, relevant markets are defined by crossing two different dimensions: the product market and the geographic market.

The process of product market definition consists in identifying all products and/or services that are sufficiently interchangeable or substitutable, not only in terms of their objective characteristics, by virtue of which they are particularly suitable for satisfying the needs of consumers, but also in terms of their prices or their intended use[38].

The exercise of defining the relevant product or service market, which must be carried out in the light of national circumstances and taking the Recommendation on Relevant Markets and the "Guidelines" into account, commences by grouping together products or services that are used by consumers for the same purposes/end use[39], that is, according to demand.

These products and services are part of the same relevant market where the behaviour of the producers or service providers concerned are subject to the same type of competitive pressure, that is, on the supply side, namely, as far as the price-setting is concerned.

In this context, there are two main types of competitive pressure: (i) demand-side substitution; and (ii) supply-side substitution[40].

These competitive constraints, alternatively or together, may represent grounds for defining the same product market.

In theory, the degree of substitutability or complementarity between two products may be estimated on the basis of the cross-elasticity of demand. However, in practise, this is a complex analysis and available data are scarce, thus one possible way of assessing the existence of any demand and supply-side substitutability is to apply the so-called "hypothetical monopolist test" (SSNIP test – small but significant non-transitory increase in price)[41].

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[38] Cf. Guidelines §44.

[39] Cf. Guidelines §44.

[40] Cf. Guidelines §38. A third source of competitive constraint on operator's behaviour exists, namely potential competition - this possibility will be taken into consideration where relevant.

[41] Cf. Guidelines §40-43.

The relevant geographic market comprises the area in which companies concerned are involved in the supply and demand of relevant products or services, in which area the conditions of competition are similar or sufficiently homogeneous relatively to neighbouring areas[42].

The definition of the geographic market assumes the use of the same methodology for the definition of the product market, namely the hypothetical monopolist test, which enables the identification of competitive pressure on demand and supply-side substitutability.

2.1. Delineation between wholesale interconnection services

In its former Recommendation on Relevant Markets (2007/879/EC, of 17 December 2007), EC referred the following definition of the market for call termination on public telephone network(s) provided at a fixed location:

- Call termination on individual public telephone networks provided at a fixed location "is taken to include call conveyance, delineated in such a way as to be consistent, in a national context, with the delineated boundaries for the market for call origination and the market for call transit on the public telephone network provided at a fixed location"[43].

In the Explanatory Note accompanying Recommendation 2007/879/EC, EC stated also that the delineation between origination services, call termination services and transit services would depend on the network topology, being incumbent on NRA to define the elements that form part of each service.

In the Explanatory Note accompanying the new Recommendation, EC refers, among other aspects, that the relevant market is limited to each terminating operator's network, that in line with a technology-neutral approach, it comprises termination on PSTN (public switched telephone network) and IP networks and that its geographic scope coincides with the geographic coverage of the network concerned[44].

In the scope of analyses undertaken in 2004 and 2005 on the definition of relevant markets and SMP assessments in markets 8, 9 and 10 identified in Recommendation

[42] Cf. Guidelines §56.

[43] Cf. Recommendation 2007/879/EC (*vide* in the annex the definition of the market for call termination on individual public telephone networks provided at a fixed location, available at: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2007:344:0065:0069:PT:PDF).

[44] Cf. new Recommendation - Explanatory Note pg. 28 to 31.

2003/311/EC (*vide* Determination of 8 July 2004[45] on wholesale markets for call origination and termination, and Final Decision of 25.05.2005[46] on the market for transit services in the public telephone network at a fixed location), three interconnection markets were defined, which may be distinguished as follows:

- Call origination on the public telephone network at a fixed location

  Origination consists of the service whereby an operator and/or provider conveys a call originated on a terminal point of its network up to a specific interconnection point of another operator. In the case of MEO's offer, it comprises local origination, single transit origination and double transit origination, where applicable (*vide* Figure 1 below).

- Transit services in the public telephone network

  Transit is defined as the service provided by an operator whereby calls originated and terminated on networks other than its own are conveyed (*vide* Source: ANACOM

  Figure 2 below).

- Call termination on the public telephone network at a fixed location

  Termination corresponds to the service whereby an operator and/or provider terminates on its own network a call made to a terminal point of its network that has been conveyed by another operator, comprising in MEO's case, local termination, single transit termination and double transit termination, where applicable (*vide* Figure 1 below).

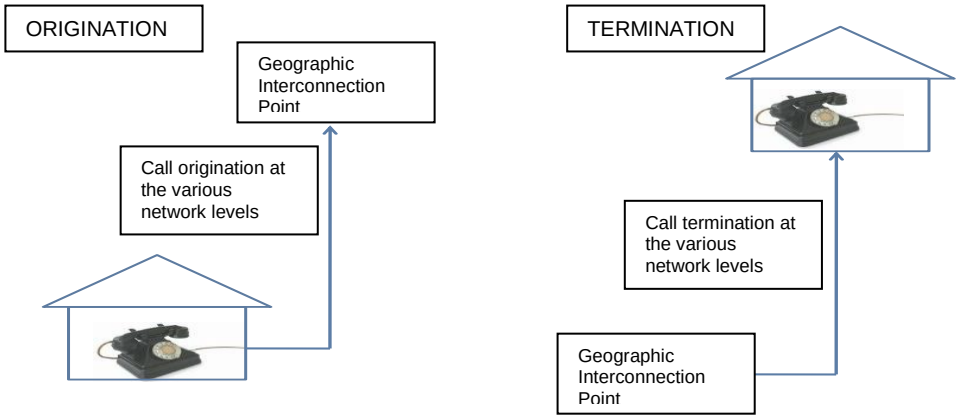
It should be noted that the analysis performed in 2005 led to the conclusion that the transit market was competitive; this market, in fact, was no longer covered by Recommendation 2007/879/EC or by the current Recommendation.

Subsequently, in 2014, ANACOM performed a new analysis of the market for call origination on the public telephone network at a fixed location, which maintained the delineation between the three interconnection markets presented above.

[45] Available at http://www.anacom.pt/render.jsp?contentId=409607

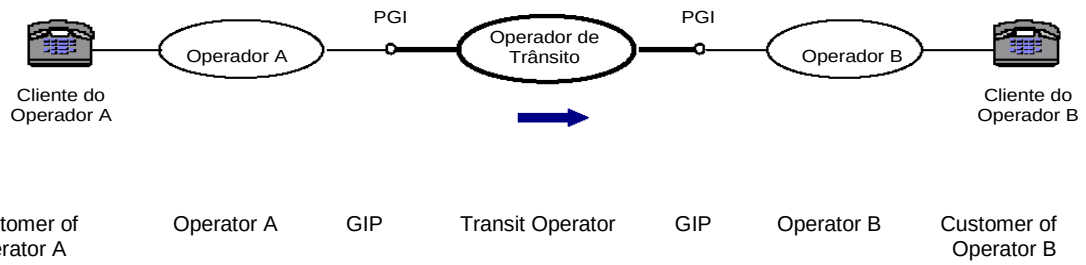
[46] Available at http://www.anacom.pt/render.jsp?categoryId=152662

Figure 1 – Definition of Origination/Termination adopted by ANACOM



Source: ANACOM

Figure 2 – Definition of transit services adopted by ANACOM



Source: ANACOM

ANACOM considers this delineation to be the starting point for the definition of interconnection markets.

2.2. Interconnection architecture

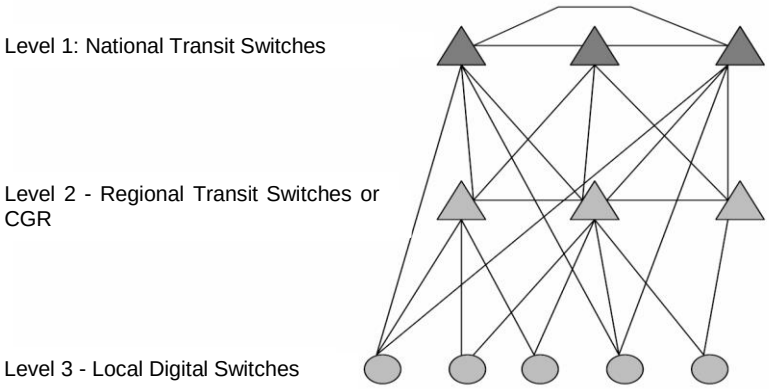
The current situation of electronic communications networks in Portugal differs from one operator to another. The switched network of the incumbent operator (MEO) abides by a traditional topology and size for a network which started to be built many years ago. For

this reason, the Reference Interconnection Offer (RIO) identifies the following hierarchical levels[47]:

- Level 1 - National Transit Switches;
- Level 2 - Regional Transit Switches or Network Group Centre (*Centro de Grupo de Redes* - CGR);
- Level 3 - Local Digital Switches.

Figure 3 presents a diagram of MEO's fixed network structure. The existence of direct meshes (between switches of the same level or of a different level) stands out.

Figure 3 – Schematic diagram of MEO's network structure[48]



Source: ANACOM

As described in RIO[49], MEO's network is made up of six national transit switches (Level 1), 51 simple transit switches or CGR (Level 2) and 95 local digital switches (Level 3),

[47] It is noted that, in the scope of RIO, MEO defines the termination service as "*the service whereby MEO terminates, on its own network, a call made to a terminal point of its network, which was delivered by an OSP which whom an Interconnection Agreement was concluded.*

Types:

Local - where the call delivered by the OSP at a given Local Geographic Interconnection Point (GIP) is made to a MEO user whose number belongs to numbering levels of this GIP.

Simple Transit - where the call delivered by the OSP at a given Regional GIP is made to a MEO user whose number belongs to this GIP.

Double Transit - where the call is delivered by the OSP at a National Geographic Interconnection Point.

Nomadic VoIP - where the call delivered by the OSP at a given Local Geographic Interconnection Point is made to a MEO user whose number belongs to nomadic VoIP numbering levels."

[48] Where CGR corresponds to *centro de grupo de redes* (network group centre).

which provide Geographic Interconnection Points (GIP) of a national, regional and/or local type.

In the scope of RIO, interconnection between a MEO GIP and an OPS GIP operates on the basis of signalling system No. 7 (SS7)[50], using the ISUP (ISDN User Part) protocol, over PSTN. As such, IP voice traffic conveyed to an interconnection point, in the absence of an IP interconnection, will require conversion in order to be conveyed to the wholesale provider under the appropriate protocol.

Nevertheless, in this context of network architecture, the evolution of networks and respective implications at the level of the interconnection architecture itself must be taken into account. In fact, the offer of IP-based services has registered significant developments, and, in particular, large investments have been announced and made in this field. It is likely that the introduction of NGNs bring about relevant efficiency gains with an impact on the market under analysis. In recent years, networks of all operators, including MEO's, have developed so they may be operated in an IP environment, thus the network structure has acquired very high capacity while requiring lower investment and maintenance costs, maintaining similar reliability characteristics as the incumbent's network and additionally allowing the provision of other services considerably more demanding in terms of the required capacity.

As far as network structure is concerned, in NGN, switches may not be subject to a pyramid scheme given that each local switch may be connected to one or more switches at different levels. Voice packages for a given call between final users may take different routes, while the signalling itself and call contents may also take different routes.

In more detail, in all-IP networks[51], interconnection intended to ensure the provision of telephony service depends on some specific elements. The call control server (traditionally a softswitch) performs call control functions in IP networks. This server analyses the recipient's address - which could be an E.164 address (telephone number) or an IP address (for example a Session Initiation Protocol (SIP) address) - routing it to the IP network (where the destination is a user of the same network or a provider with

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[49] RIO V2/ 2015 of 24.11.2015 (MEO).

[50] The following elements are defined at the level of the SS7-based network architecture: signalling point (SP) which corresponds to a signalling network addressing node, and signalling transfer point (STP) which corresponds to a node with signalling network transit functions. Both functions may be included in the same node.

[51] Networks where not only the core, but also access and interconnection, are IP-based.

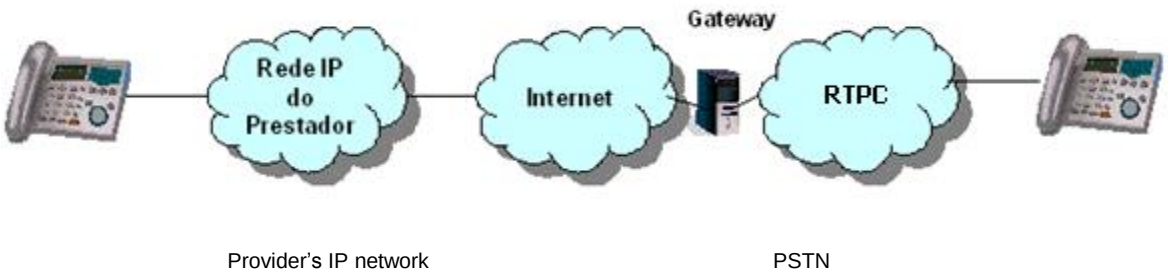
which an IP connection has been established) or to a gateway where the destination is the PSTN network.

In the IP-PSTN or PSTN-IP interconnection, the gateway is the element that codifies and encapsulates voice traffic in IP packages, using, among others, the Real Time transport protocol (RTP), under the control of the call control server.

Interconnection between the public switched telephone network and IP networks operates via PSTN-IP gateways, using on the PSTN side protocols such as SS7 or Digital Subscriber Signalling System No. 1 (DSS1), and on IP side SIP or H.323 protocols, whereas interconnection between IP networks may be operated directly, gateways being required only where signalling systems used are not compatible.

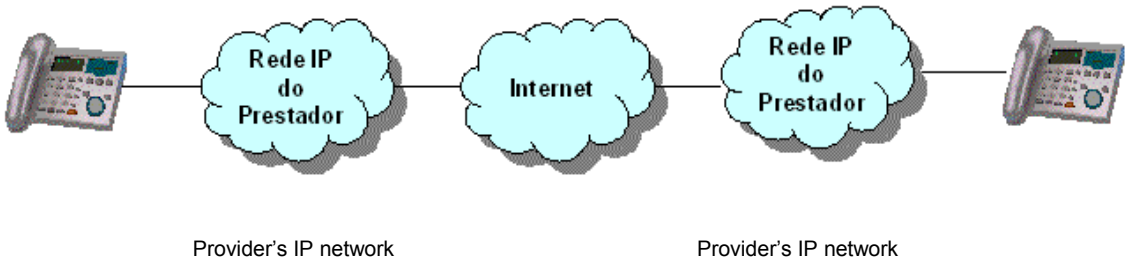
The two following figures illustrate interconnection operated between an IP network and a switched telephone network, and between IP networks.

Figure 4 – Typical setup of an IP-PSTN or PSTN-IP interconnection



Source: ANACOM

Figure 5 – Typical setup of an IP-IP interconnection



Source: ANACOM

It should be noted, as far as IP-IP interconnection is concerned, that the network operator will naturally still need to indicate the most appropriate interconnection architecture, but this will also depend on networks of other operators with which interconnection is to be established, and this situation could also evolve on the basis of bilateral relations between operators. In fact, one of the major points in the definition of such IP interconnection architecture consists in the definition of the required number of interconnection points (and respective location), a number which is expected to be significantly low compared to what is currently required for interconnection with MEO's switched network. However, in the scope of the definition of this number, the security and resilience of interconnections must be taken into consideration.

The regulation of wholesale services must abide by the principle of technological neutrality, and it is essential that it follows the technological transition of networks to IP technology, particularly as far as interconnection architecture and protocols are concerned. For this reason, hand-in-hand with the necessary consideration of the switched network structure, new networks and respective architectures shall also be taken into consideration in this document, to the extent that they are relevant in the scope of the provision of wholesale interconnection services under analysis.

2.3. Definition of the product market

According to EC, call termination is the least replicable element among inputs required for the provision of the fixed telephone service, each market being the size of each network.

In its analysis of the market for call termination on the public telephone network at a fixed location, carried out in 2004, ANACOM concluded that there were no substitute services for call termination on a given fixed network, in line with conclusions reached by EC.

The product market must now be defined again, as set out in the following sections, whereby the starting point for the definition of the product market is the market for each of the networks. A market restricted to each user, or a market restricted to a given geographic area, could be defined in theory (given that a call is not able to substitute another call); however, it is deemed that this definition is not appropriate, as operators would not break down the termination service provided to each user of their networks, by establishing different prices for each user, as this would not be feasible nor economically profitable.

As such, it is deemed that the wholesale market for call termination has at least the size of each of the networks where a call provided at a fixed location is terminated, being analysed below the possibilities of demand-side and supply-side substitutability among different types of networks and different types of technologies, in line with the referred Recommendation.

As far as the demand-side is concerned, and on a user perspective, an analysis is made of differences between the product concerned and other products in terms of their technical characteristics, types of use and prices; on the supply-side, cost and barriers to entry into the market by new operators are taken into account.

2.3.1. Substitutability between public telephone networks at a fixed location

The possibility of substitution between different public telephone networks at a fixed location at the level of the provision of the termination service, in such a way as to broaden the market definition to include all operators providing the fixed telephone service in the retail market, would require that a given operator could substitute another in the provision of that service, or that a given customer could have the possibility of choosing different providers to terminate calls that are made to him/her.

However, as in the analysis carried out in 2004, there continues to be a technical impossibility that prevents a call from being terminated by an operator other than the one that serves the destination customer.

As regards possibilities of substitution at retail level, nowadays most retail customers, for obvious reasons of good economic sense, have only one access to the public telephone network supplied by a single operator, which renders such substitution impossible. Another possibility of substitution could result from the switch of operator by the final customer as a result of an increase of the wholesale termination price by its operator. However, given that this is a market where the price of the wholesale termination service is determined by the operator of the network where the call is terminated, which results from a choice made by the called customer, the latter, which does not bear any cost, is usually reasonably insensitive to this price.

The existence of some user groups (especially closed groups that value most prices of received calls) could be enough to justify a broader product market, that integrated both retail and wholesale levels. However, as operators are able to segment their customers, making specific offers to these user groups (based on very low prices within the same

group), maintaining other types of offers for other groups that are less price-sensitive, operators are in general not constrained as regards pricing of termination on the respective networks. In the light of the above, it may be concluded that the relevant market continues to correspond to call termination on each of the individual public telephone networks provided at a fixed location.

2.3.2. Wholesale services provided using different technologies and interfaces

The termination service that integrates these markets is currently mainly provided via SS/-based wholesale traffic interfaces. In the light of the principle of technological neutrality, ANACOM takes the view that these termination markets should include all calls terminated on the public telephone network at a fixed location, regardless of the technology used, and, as such, of the interface between operators networks at the interconnection point.

ANACOM acknowledges, for the purpose of this analysis, the investment that most operators has made in IP networks and the consequent and gradual replacement of the network architecture, based on circuit switching and SS7 protocol, by the IP protocol, which on its turns has led to the increase of offers based on VoIP technology[52]. It must be stressed, in this regard, that final customers are not necessarily aware at the present time of the difference between a traditional telephone service and a service based on VoIP technology.

Likewise, regardless of whether interconnection takes place via TDM (Time Division Multiplexing) or IP interfaces, the differences between these two services at wholesale level are also not perceived by the final customer.

Within the framework of the principle of technological neutrality, marketed products are not analysed according to how they are produced or to the technology involved, but according to characteristics that are visible to the purchaser. As such, it is noted that wholesale services that are conveyed via new interconnection interfaces, including IP-IP, enable operators to supply products in the retail market that are similar to those relying on existing wholesale offers, which is why they belong in fact to the same relevant market. In particular, the fact that traffic may be carried, before and after the delivery, over TDM networks or IP networks, must remain neutral in the definition of the product from a

[52] Consistently with the analysis carried out in the following section, these offers exclude simple VoI offers, and always involve the allocation of numbering resources.

consumer's point of view, as it will be indifferent to the latter which transmission technology is used by the operator providing the wholesale termination service.

Therefore, and again taking into account investments that most operators have made in IP networks and how relatively easy it is to convert one type of traffic into another (TDM and IP), notwithstanding some additional costs that may be involved, it is deemed that the wholesale call termination service in IP interconnection points must also integrate the market for wholesale termination services.

2.3.2.1. Call termination on customers of the fixed VoIP service and of the nomadic VoIP service ("30" range)

This sub-chapter focuses on whether IP-based voice offers are covered by these relevant markets.

In this respect, it is stressed that under point ii) of article 3 of ECL, the publicly available telephone service is defined as "*a service available to the public for originating and receiving, either directly or indirectly, national calls or national and international calls through a number or numbers included in a national or international numbering plan*".

In compliance with the referred definition, VoIP-based voice services are clearly telephone service offers[53].

As regards VoIP services, it must be verified whether they may be all included in this market. In this context, three possible forms of use of the VoIP technology can be distinguished, namely:

- **Fixed**, where the use is always made at the same location or address;
- **Nomadic**, where the connection may take place in different locations of the country (different geographic areas), or even abroad;
- **Mobile**, in case it is possible to maintain an active moving voice session throughout the national country.

[53] It is noted that this definition does not include Internet-based voice services, where information on the voice signal mainly relies on computer-to-computer connections. In this case, at the level of quality, the priority between the various packages that convey that signal is identical to other Internet-based applications, which as a rule are of the "best efforts" type. Moreover, interoperability with other telephone services or applications cannot be ensured. Examples of such applications include Sapo Messenger, Skype and Google Voice; the VoI service presents features that are clearly different from those provided by offers of traditional telephone services.

In the case of mobile VoIP services, the analysis is included in the assessment made in the specific chapter on call termination on mobile networks - *vide* chapter 2.3.3.

As regards the fixed and nomadic VoIP services, the outlines of the regulatory approach for VoIP services defined by ANACOM on 23.02.2006 must be stressed. In this determination, the Regulatory Authority considered that, as far as numbering and portability were concerned, VoIP offers provided at a fixed location could be assigned geographic numbering, the responsibility for compliance with this requirement (use at a single fixed location) falling on the VoIP provider, that is, where the telephone service is provided at a fixed location.

The same decision determined also the opening of a new non-geographic numbering range - “30” -, in order to distinguish the nomadic use VoIP service from fixed telephone services, having providers of nomadic use VoIP services stressed the need for immediate implementation of number portability within the “30” numbering range. As regards VoIP services supplied by a provider that relies on third party broadband access or of a typically nomadic use, ANACOM considers that the use of a non-geographic numbering range is deemed to be appropriate, so as to distinguish such services from the telephone service provided at a fixed location (which has a geographic numbering range). As a result, while granting these providers with access to numbers of the National Numbering Plan (NNP), allowing the respective customers to receive PSTN calls in any location of the country using non-geographic numbering, an efficient use of numbering resources was also safeguarded.

In fact, VoIP services currently use in Portugal both geographic numbering ranges and nomadic non-geographic numbering ranges (“30” range), according to whether services provided are fixed or nomadic. However, taking into account that characteristics of the VoIP service provided at a fixed location and nomadic VoIP services are similar, in most cases, it follows that, from the final customer’s perspective, services provided using the “30” range or geographic numbering are not perceived as being different. As such, there is substitutability at retail level between fixed VoIP-based services and nomadic VoIP services.

At wholesale level, the VoIP call termination service has been provided on the basis of PSTN-PSTN interconnection, with the possibility of a provision via IP interconnection whereby network elements that are used are not altered according to whether VoIP traffic provided at a fixed location or nomadic VoIP traffic are concerned.

It is noted also that, in several countries where VoIP-based telephone service offers are provided, no nomadic numbering exists, as nomadism is ensured by offers with geographic numbering, and cannot be distinguished from the latter.

In the light of the above, it may be concluded that both VoIP call termination at a fixed location and VoIP call termination of a nomadic use integrate the market for wholesale call termination on the public telephone network at a fixed location, which associated to traditional fixed networks, thus cove termination in accesses identified via geographic numbering and nomadic numbering[54].

2.3.3. Call termination on mobile networks

In its analysis conducted in July 2004, ANACOM concluded that call termination on the mobile network was not a substitute for call termination on individual public telephone networks at a fixed location. This issue will be reanalysed in this section.

On the demand side, it must be analysed whether, at the present time, it is possible to replace a call to a number in the fixed network by a call to a number in the mobile network. This would be feasible in situations where the subscriber both has a fixed access and a mobile access. However, even where this condition is met, factors still remain that justify why these two services, fixed and mobile, are used differently, and which inclusively lead to different usage profiles. In fact, the user perceives differences between these two services, such as: those concerning the terminal equipment itself, which entail different features, the fact that the mobility associated to the mobile service is its most distinctive characteristic, the quality of communications is also different, and conditions of provision of both services also differ.

It is also noted that at wholesale level, the price of termination on the fixed network is substantially lower than that of termination on the mobile network, and it is not likely that the price of termination on the mobile network puts any pressure on pricing of termination on the fixed network. Given the price difference that currently exists between these two wholesale services, both types of termination would only be part of the same market in case charges with fixed termination increased very substantially, so that a final user would consider substituting a call to a fixed number for a call to a mobile number.

[54] Most NRA included VoIP-based services in the relevant market.

In the light of the above, it may be concluded that call termination on individual public telephone networks at a fixed location and call termination on individual mobile networks do not integrate the same relevant markets.

2.3.4. Call termination at a fixed location through the use of access networks that rely on GSM/UMTS frequencies (homezone products)

As from 2005, several offers that allow access to the public telephone network at a fixed location, relying on the Global System for Mobile Communications (GSM) and 3rd generation Universal Mobile Telecommunication System (UMTS) technology and network started to emerge on the market, for access to final customers. These solutions, commonly known as homezone offers, are perceived by final customers as substitutes for offers that are based on fixed networks, in the light of their prices and features.

At interconnection level, and more specifically at the level of the call termination service, operators who have made these offers available charge for voice call termination on homezone customers an equivalent amount to that charged for termination on fixed networks. In this regard, it must be noted that, on the demand side, both for the wholesale customer and for the retail customer that makes the call, the type of network over which the call is originated or terminated is indifferent. As the provision of a retail service at a fixed location is here under consideration, which is subject to a price corresponding to that provision and identified by the respective numbering range, the associated wholesale interconnection service is the termination service at a fixed location.

On the supply side perspective, it must be verified whether, further to a small but significant and lasting price increase of termination prices at a fixed location, mobile operators would enter this market to provide termination services at a fixed location. This is, in fact, a situation which already occurs, given that all mobile network operators in the market make available homezone offers, which rely on the respective radio networks, providing the wholesale call termination service at a fixed location on the basis of GSM/UMTS networks. As such, it may be concluded that the two types of call termination service integrate the same market.

2.3.5. Call termination at the various network levels

In the market analysis carried out in 2004, ANACOM concluded that call termination services at the various network levels: local, simple transit and double transit, were

provided simultaneously and integrated the same relevant market, in spite of the differences between networks of the various operators that were pointed out.

In this respect, at the present time, operators that purchase voice call termination services are able to terminate calls at local level or choose an interconnection at a higher network level.

In fact, on the supply-side, MEO provides in its fixed network call termination services at local, simple transit, double transit and nomadic VoIP levels. The analysis of the specific case of nomadic VoIP services was developed in point 2.3.2.1.

Other operators usually present a network structure which is not hierarchical, thus interconnection points (and corresponding termination services) are provided with no differentiation between levels or steps.

From a demand-side perspective, substitutability between the various interconnection levels could be limited by pricing differences and by the existence (or not) of a self-owned network infrastructure (or leased from third parties) required to access the various interconnection points. In fact, substituting a higher level termination for a first level interconnection termination is dependent on whether the price difference compensates the cost of developing a self-owned network up to those lower-level points or of leasing means owned by other operators, or even the costs arising from the purchase of transit services from third party operators so as to enable that substitution. Although some differences exist between prices of call termination at the various network levels, it may not be concluded unequivocally that substitutability does not exist.

On the supply-side, it is considered that local termination services and termination services in higher levels of the network are already made available on the market by operators that provide the fixed termination service, whereby operators that purchase this service are required to choose, according to their networks and conditions of competition, the level of interconnection over which traffic is to be carried.

The evolution to all-IP networks - a process that is currently taking place although not necessarily at the same pace for all operators - and consequently the provision of IP interconnection, will determine changes in the way how termination traffic in delivered, the existence of several interconnection levels ceasing to be relevant. In new generation networks, call control and transport are decoupled, thus the concept of local switching associated to the exchange nearest to the customer no longer makes sense, as the call

transport is IP-based and its management and control are centralized in platforms that are not associated to the customer location.

Although different interconnection levels cease to exist, the use of transit may continue to be a means that enables operators to access all interconnection points to which they must be connected in order to carry IP termination traffic.

The correspondence between hierarchical levels associated to TDM interconnection, where they exist, and the single IP interconnection level, is not immediate. However, in many cases, for the purpose of the definition of the relevant market, IP interconnection is included in the same market as local level and simple transit TDM interconnection.

In this transition stage, where most traffic (namely of a national origin) is still carried over TDM, it is relevant to maintain in the same market TDM termination services in the different network levels, as in the past, and at least up to the moment when IP interconnection becomes available.

In the light of the above, it is deemed that termination services in the various network levels integrate the same relevant market.

As referred earlier (vide chapter 1.2.4), in its letter of comments of 29.11.2016, and while not challenging the currently notified market definitions, EC "*urges ANACOM to review the definition of the wholesale fixed call termination markets as soon as possible and to set an exact demarcation point between termination and transit markets, in recognition of the state of competition on transit routes beyond the regional/local point of interconnection",* declaring also that, in the meantime, ANACOM is required "*to lift in its final measure the safety caps imposed on tariffs for termination at national level*."

It is highlighted that any redefinition of the product market, as requested by EC, would imply a significant change in the draft decision, which could not be approved without a new sounding of the national market, thus inevitably affecting the schedule for the adoption of this decision, and consequently preventing the imposed reduction of termination prices in the very short term. Moreover, the anticipation of this market's reanalysis is already provided for, in order to update the costing model (as referred in the report of the public consultation procedure and prior hearing of stakeholders on the draft decision), and in this scope also the market definition will be reviewed. In this context, a new analysis of this market, including the update of the costing model, shall take place in 2017, to be completed in 2018, these activities having been entered in ANACOM's Multiannual Activity Plan for the 2017-2019 period.

Lastly, is should be taken into consideration that, although the product market is not immediately altered, this decision meets comments made by EC as regards price caps imposed on double transit termination, as explained further below in chapter 5.3.4.5.

2.3.6. Definition of the product market - conclusion

Against the background of the previous sections, ANACOM concludes that the relevant product market has the size of the network of each network operator providing termination services, comprising voice call termination on operator networks that provide the fixed telephone service, supplied at various network levels, regardless of the transport technology and the interconnection interface that are used, including the provision of termination on operator networks that provide the VoIP service (of a fixed or nomadic use), and the fixed telephone service that relies on GSM/UMTS frequencies (homezone services).

2.4. Definition of the geographic market

As the product market was defined as call termination on individual public telephone networks at a fixed location, the geographic delimitation of the market coincides with the geographic coverage of each termination network, whereby no tariff differentiation exists within the latter according to specific geographic areas, nor different conditions of competition.

2.5. Conclusion

In the light of the analysis above, it is deemed that, in Portugal, wholesale markets for voice call termination on the public telephone network at a fixed location are national and correspond to call termination at a fixed location in each individual network, at the various network levels and regardless of the transport technology and interconnection interface that are used.

3. Markets susceptible to *ex ante* regulation

EC considers that markets identified for the purpose of *ex ante* regulation must cumulatively meet the three following criteria[55]:

- Barriers to entry and to competition development: persistence of high entry barriers, either of a structural, legal or regulatory nature;

  It is deemed, as far as this market is concerned, that this criterion is met, as explained in chapter 4 of this document.

- Dynamic aspects: market characteristics which do not tend towards effective competition within the relevant time horizon, *ex ante* regulatory intervention being required. The application of this criterion involves examining the state of competition behind the barriers to entry;

  This criterion is met as regards this market, as explained in chapter 4 of this document, thus being concluded that without *ex ante* regulatory intervention no effective competition will exist in the short/medium term.

- Relative effectiveness of competition law and complementary *ex ante* regulation: insufficiency of competition law alone to adequately address persistent market failures concerned.

  As follows from the opinion published at ANACOM's website[56] on articulation between ANACOM and AdC, available information and the various existing instruments, frequency, detail and urgency of interventions and the fact that SMP exists in these markets (*vide* chapter 4 of this document) determine that *ex ante* regulation is essential to mitigate the effects of failures in these markets.

Given that the product market defined in the scope of the market for call termination on the public telephone network at a fixed location is equivalent to the relevant market recommended by EC, and that, according to EC, markets listed in the new Recommendation continue to be identified on the basis of the three above-mentioned cumulative criteria[57], it is thus deemed that the market defined in this analysis procedure is

[55] Cf. Recommendation – Explanatory Notes 2.2 (p. 8).

[56] Available at http://www.anacom.pt/template20.jsp?categoryId=774&contentId=128076.

[57] Cf. Recommendation – Explanatory Notes p.11: "*Given the analysis conducted by the Commission in the Explanatory Note of retail markets and their related wholesale markets, for the markets listed in the Recommendation, a presumption exists that the three criteria are met.*"

relevant for the purpose of *ex ante* regulation. For this reason, the existence of SMP therein is assessed, without the need for a prior analysis of the three criteria test.

4. Assessment of SMP in wholesale markets for call termination on the public telephone network at a fixed location

Under article 60, paragraph 1, of ECL (article 14 of the Framework Directive), "*an undertaking shall be deemed to have significant market power if, either individually or jointly with others, it enjoys a position equivalent to dominance, that is to say, a position of economic strength affording it the power to behave to an appreciable extent independently of competitors, customers and consumers*".

SMP may be held by a single company in the market (individual dominance) or by more than one body (joint dominance)[58]. Additionally, where a company has SMP in a specific relevant market, it may be deemed that it has SMP also in a closely related market, where connections between the two markets are such that the market power held in a market leverages into the other market, thus strengthening the company's market power (SMP leveraging).

When assessing SMP, the analysis must assume that no actual or potential *ex ante* regulation exists in the relevant market. This must be the procedure to be carried out, given that from the results of the SMP analysis it will be concluded whether or not such regulatory intervention is required. For this reason, SMP assessment in this market requires the assumption of a hypothetical market where no *ex ante* regulation (or the "threat" of *ex ante* regulation) exists.

As regards criteria for assessing SMP, according to EC Guidelines, "*a dominant position is found by reference to a number of criteria and its assessment is based*, (...) *on a forward-looking market analysis based on existing market conditions*"[59].

In the Guidelines, EC presents market shares as a proxy for market power, stating that "*according to established case-law, very large market shares — in excess of 50% — are in themselves, save in exceptional circumstances, evidence of the existence of a dominant position*"[60] [61].

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[58] ECL, article 60, paragraph 3.

"The NRA may consider that two or more undertakings are in a joint dominant position, even in the absence of structural or other links between them, where they operate in a market which is characterised by a lack of effective competition and in which no single undertaking has significant market power."

[59] Cf. Guidelines §75.

[60] Cf. Guidelines §75.

[61] In the Commission's decision-making practice, single dominance concerns have usually arisen in the case of undertakings with market shares over 40%, although in some cases there may be concerns about

However, as EC refers in its Guidelines[62], the existence (or absence) of a dominant position cannot be established on the sole basis of large (or low) market shares. As such, NRA should use a combination of other criteria, among those referred in that document.

4.1. Individual dominance

The existence of individual dominance will be solely assessed, given that in markets with a single operator, joint dominance is not applicable.

In this context, ANACOM considers that the main criteria to assess individual market power in the market for call termination on the public telephone network provided at a fixed location are market shares, prices charged, barriers to market entry and countervailing buying power.

The analysis undertaken takes into consideration the definition of company provided for in the Competition Law currently in force[63]. Accordingly, in terms of competition analysis, companies that integrate economic groups were jointly analysed. Without prejudice, in certain circumstances, namely on account of differences in network architectures and tariff structure, there are grounds for specific references to each of the companies integrating these groups.

4.1.1. Analysis of effective competition

4.1.1.1. Market shares

Providers of the fixed telephone service operating in Portugal enjoy a natural monopolistic situation in the scope of the provision of wholesale call termination on the respective public telephone network at a fixed location, where each operator holds a 100% market share.

Such significant market shares are a firm evidence of significant market power. However, as EC[64] itself acknowledges, this does not of itself necessarily mean that all operators

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dominance even with lower market shares, or cases of companies with higher market shares which are not deemed to be dominant undertakings.

[62] Cf. Guidelines §78.

[63] Law No. 19/2012, of 8 May.

[64] In this context, EC refers in the Explanatory note that: "*While a 100% market share provides a very strong presumption of SMP, in accordance with competition law principles, a finding that there is no SMP may occur*

enjoy significant market power, as this also depends on the degree of countervailing buying power and on other factors that may constrain this market power, which will be analysed in sections below.

At present, and without prejudice to the fact that at the level of wholesale markets all operators hold a 100% market share, at retail level the various operators acting on the market show a very different presence. MEO continues to stand out given its market share both at the level of equivalent accesses (incorporating all types of access) and at the level of volume of traffic carried over its network. It is thus the largest FTS provider on this market, exceeding the weight of the two providers with the 2nd and 3rd largest shares, and it is noted also that at the level of accesses it holds a market share close to 50%. At traffic level, MEO holds also the largest market share, very close to 45%.

Table 5 – Evolution of shares of FTS main accesses

	2008	2009	2010	2011	2012	2013	2014	2015	2Q2016
MEO (1)	68.5%	63.6%	60.2%	58.4%	57.2%	56.4%	54.0%	50.1%	48.3%
Ex-PT Comunicações/MEO	67.9%	62.8%	59.3%	57.4%	57.1%	56.3%	54.0%	-	-
Ex-PT Prime	0.4%	0.6%	0.8%	1.0%	-	-	-	-	-
Ex-TMN	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	-	-
NOWO (1)	6.4%	5.7%	5.8%	5.7%	5.4%	5.0%	4.6%	3.9%	3.6%
ONITELECOM (1)	1.2%	1.0%	1.0%	0.8%	0.7%	0.6%	0.6%	0.5%	0.5%
Grupo NOS							30.7%	32.8%	33.8%
Ex-Grupo ZON Optimus (2)	-	-	-	-	-	31.2%	-	-	-
Ex-Grupo ZON/TV Cabo	4.3%	10.6%	14.8%	17.4%	19.7%	-	-	-	-
Ex-Optimus	14.1%	14.3%	12.9%	12.5%	11.7%	-	-	-	-
Vodafone	2.9%	3.8%	4.2%	4.4%	4.7%	6.4%	9.6%	12.4%	13.5%
Other Alternative Providers	2.5%	1.0%	1.1%	0.8%	0.5%	0.5%	0.5%	0.3%	0.3%

(1) In June 215, Altice completed the purchase of 100% of the share capital of PT Portugal, SGPS, that owns MEO - Serviços de Comunicações e Multimédia S.A., Grupo Altice thus integrating as from that moment MEO, Onitelecom and NOWO (then Cabovisão); in November 2015, AdC approved a decision not opposing the purchase by Cabolink S.à.r.L. of the control over NOWO and Onitelecom; this operation was concluded in January 2016. Shares are shown in separate in the table, given that the period during which Grupo Altice integrated the three companies has impact for only a part of 2015.

if there is sufficient countervailing buyer power, which would render any non-transitory price increase unprofitable. This has been taken into account by the Explanatory Note to the 2007 Recommendation, which stated that the fact that each operator is a monopolist on its own network does not automatically mean that it has significant market power, and that the extent to which countervailing buyer power effectively constrains the ability of terminating operators to charge excessive termination charges has to be assessed on a case-by-case basis in the context of the SMP assessment. As noted in the Explanatory Note to the Termination Rates Recommendation, termination being a situation of two–way interconnection where two wholesale termination prices have to be negotiated, these could potentially be used as leverage in the negotiations. This would suggest that each terminating operator is facing a certain degree of bargaining power from its counterparts. Such reasoning could eventually lead to rates being set at a close-to-costs level among symmetrical networks. This type of agreements could however lead to excessive pricing on the termination markets, thus still allowing for anti-competitive behaviour in the form of e.g. foreclosure or collusion."

(2) Information for 2013 has been included by reference to ZON Optimus (which aggregates NOS, ZON TV Cabo Madeirense and ZON TV Cabo Açoreana, currently designated NOS Madeira Comunicações, S.A. and NOS Açores Comunicações, S.A.); for previous years, it is shown separately for Grupo ZON and for Optimus.

Source: ANACOM, FTS report – 2nd quarter 2016.

The market share concerning national traffic shows a similar pattern as that recorded for equivalent accesses.

Table 6 – Evolution of shares of FTS voice traffic

	4Q08	4Q09	4Q10	4Q11	4Q12	4Q13	4Q14	4Q15	2Q16
MEO	64.3%	60.1%	58.5%	55.6%	51.9%	51.6%	50.5%	47.4%	44.2%
Ex-PT Comunicações	57.5%	53.8%	52.7%	50.4%	51.6%	51.4%	50.4%	-	-
Ex-PT Prime	6.0%	5.3%	5.1%	4.6%	-	-	-	-	-
Ex-TMN	0.9%	1.0%	0.7%	0.5%	0.3%	0.2%	0.1%	-	-
NOWO	3.3%	3.6%	3.7%	3.9%	4.3%	4.1%	3.8%	3.6%	3.3%
ONITELECOM	2.7%	2.2%	2.0%	1.8%	1.2%	0.9%	0.6%	0.5%	0.6%
Grupo NOS							33.3%	33.2%	36.0%
Ex-Grupo ZON Optimus	-	-	-	-	-	34.8%	-	-	-
Ex-Grupo ZON/TV Cabo	4.5%	10.3%	14.3%	18.3%	23.0%	-	-	-	-
Ex-Optimus/Sonaecom	15.5%	15.3%	13.3%	13.0%	11.6%	-	-	-	-
Vodafone	4.8%	5.6%	5.3%	5.2%	5.7%	6.9%	9.7%	12.5%	13.0%
Other Alternative Providers	5.0%	2.9%	2.9%	2.2%	2.3%	1.8%	2.1%	2.7%	2.8%

Source: ANACOM, FTS report – 2nd quarter 2016.

In addition to the market share issue, it must be stressed that companies in these wholesale markets have different sizes. Although MEO has been losing preponderance, it remains the largest operator, with an overall presence, with the ability to supply accesses throughout the national territory and to resort to several technologies. The table below illustrates the turnover and average amount of workers of companies that provide the fixed telephone service and that are also providers of the wholesale call termination service at a fixed location.

Table 7 – Size indicators of main operators for 2014

	Turnover (Euro)	Number of workers
AR Telecom	**6 877 576**	**49**
ONITELECOM	**84 201 925**	**227**
MEO	**2 416 975 362**	**7 639**
NOWO	**97 720 557**	**230**
VODAFONE	**978 798 600**	**1 434**
Grupo NOS	**1 276 362 322**	**1 353**
NOS Açores	15 967 072	30
NOS Madeira	26 508 389	51
NOS Comunicações	1 233 886 861	1 272
Total no. of companies of the sector	5 769 171 000	13 690

Source: ANACOM, Directory of Companies in the Communications Sector, 2015 Edition and Communications Market in the National Economy (2010-2014).

4.1.1.2. Evolution of call termination prices

The behaviour of companies in the market in terms of wholesale prices charged, which is another indicator of the degree of competition in the market, is analysed below.

Prices charged by MEO for termination on the public telephone network are defined in its reference interconnection offer[65].

The analysis of this operator's price definition process leads to the conclusion that price reductions have been the result of regulatory intervention. Price proposals made by ex-PTC to ANACOM are characterized by increments for these services. Even in situations where proposals for price decreases were made, it was found that, due to the application of the principle of cost orientation of prices, prices that were determined were even lower than those proposed by ex-PTC. In the 4th quarter of 2013, a decrease in the termination price was introduced, which resulted from regulatory action, with which this operator did not agree.

Prices of call termination on the public telephone network at a fixed location charged by other operators acting on this market were also subject to regulatory intervention, as is the case with prices of termination on MEO's network (by determination of 17.12.2004, a price control obligation was imposed, on the basis of the principle of "deferred reciprocity", being stressed the differences that existed at the time between the situation of OSP and

[65] It is noted that MEO's mobile network (for homezone services) has a specific pricing structure that differs from the one that applies to the fixed network.

companies of the then ex-Grupo PT, which led to the establishment of a rule according to which prices to be charged by OSP should be based on a maximum difference of 20% in relation to prices charged by ex-Grupo PT. The determination of 26.10.2005 further imposed that prices charged by OSP should result on an average revenue per minute up to 0.90 Euro cents).

It was not determined, either in 17.12.2004, or in 26.10.2005, that the Regulatory Authority would take action so as to decrease prices charged by OSP on an annual basis or at any other intervals, but it was referred (cfr. the prior hearing report that preceded Determination of 26.10.2005) that OSP were invited to continue to decrease the respective termination prices. However, this was never the case.

ANACOM monitors prices charged by OSP in this market on a regular basis. In 2009, most operators charged a tariff with a per second billing from the first second, which allowed the price per minute to meet the price cap of 0.009€, the maximum amount defined by ANACOM in its determination of 2005. In this period, two operators showed a positive deviation from average prices charged compared to the amount defined by ANACOM.

From the monitoring action of the evolution of termination pricing, it may be concluded that most operators have not introduced, in the last years, any amendment to prices charged, maintaining them in line with maximum amount allowed. Account must also be taken of the situation described of the charging of prices exceeding values allowed by ANACOM. This shows that in these markets, termination prices only fall further to regulatory pressure, whereby a clear incentive exists, in its absence, for setting termination prices at an excessive level.

4.1.2. Entry barriers

Given the specificity of the market and of the service which integrates it, characterized by the absence of a technical alternative to termination on each individual network, it is not possible to substitute an operator's termination service for termination on another operator's network. In this context, the entry into the market by a new operator may only take place where it constructs its own network for call termination. The construction of an access network, however, is expensive, which on its own is a strong entry barrier.

It is thus concluded that this market is characterized by the existence of a strong entry barrier (of an absolute technological nature).

4.1.3. Countervailing buyer power

EC[66] defines countervailing buyer power as the "*ability of one or more buyers, based on their economic importance on the market in question, to obtain favourable purchasing terms from their suppliers. Buyer power is an important aspect in competition analysis, since powerful buyers may discipline the pricing policy of powerful sellers, thus creating a 'balance of powers' on the market concerned.*"

As such, it must be examined whether there is any operator/buyer able to exert sufficient pressure on the seller so as to constrain the setting of wholesale prices of call termination on the public telephone network at a fixed location, limiting the monopolistic power of each operator over call termination on its own network.

Taking into account the market structure, the analysis of countervailing buyer power focuses on relations between buyers and providers of call termination on the public telephone network at a fixed location in two perspectives: (i) the purchase from MEO of call termination services, and (ii) the purchase from other operators of call termination services.

4.1.3.1. Countervailing buyer power in call termination on MEO's public telephone network

It will be very hard for an operator buying wholesale call termination from MEO to exert pressure so as to constrain the setting of wholesale prices for this service. This conclusion is valid irrespective of the origin of the call.

The ability of an operator/buyer to exert pressure so as to constrain the setting of termination prices of another operator, threatening not to contract the latter's call termination services, will always be minimized by the expectation of its own customers to make calls to all destinations. Any operator, regardless of its database, seeks to provide or is even required to guarantee a general access of its customers to all customers of another operators, and is also required to ensure interoperability of services, thus its capacity to exercise the threats mentioned above in a credible manner is low. This fact is especially clear in the case of calls to MEO, the operator who holds the majority of subscribers of the fixed telephone service.

[66] European Commission (2002), *Glossary of terms used in EU competition policy - Antitrust and control of concentrations*, p. 7.

In fact, where call termination on MEO is specifically concerned, it is not likely that an operator will exert pressure on this company, threatening not to contract the respective call termination services.

Where a fixed or mobile operator decided not to purchase this service, this would adversely affect its own customers, who would not be granted end-to-end connectivity of calls made to MEO customers. In this situation, it would be likely that these customers would choose to contract telephone services from another operator, switching to one that guaranteed call connectivity. One might also consider the possibility that operators could constrain the setting of termination prices, by substantially increasing retail prices for calls to providers of termination services that charged prices deemed to be excessive. This strategy would only be successful, however, is all operators raised at the same time their retail prices in all tariffs, given that, otherwise, the customer would easily choose to simply switch operator, thus rendering the strategy ineffective.

In conclusion, it is deemed that, in the absence of regulation, the countervailing buyer power is insufficient to constrain MEO's behaviour as provider of the call termination service and to restrict its ability to behave to an appreciable extent independently of its competitors, customers and consumers.

4.1.3.2. Countervailing buyer power in call termination on the public telephone network of other fixed network operators

As described in the preceding section, and for the same reasons, it is not deemed that fixed or mobile buyers of the call termination service enjoy sufficient countervailing buyer power so as to constrain the setting of termination prices by alternative operators providing the fixed telephone service.

As receiver of most call termination traffic on the fixed network (*vide* 1.3.1), MEO could in this case play a different role, as in theory this fact could endow it, as buyer, with an increased ability to exercise some bargaining power.

However, for the reasons set out below, ANACOM believes that MEO does not enjoy sufficient countervailing buyer power to constrain termination prices charged by other fixed network operators. The analysis of the evolution of fixed termination prices charged by other operators show that the latter, as from 2005, have always established the respective prices at maximum levels allowed by regulation, even exceeding these levels in

some cases, whereby MEO (at the time, companies of ex-Grupo PT) was not able to exert sufficient competitive pressure so as to constrain the setting of such prices.

The fact that MEO ceased to the universal service provider as regards the connection to a public communications network at a fixed location and of publicly available telephone services is not likely to have any significant impact, at least in the short/medium term, on its ability to exert any countervailing bargaining power, as its customers expect to maintain the ability to receive calls from all operators, as was always the case. As such, MEO's capacity to credibly exercise any threats not to supply termination services to third party operators remains low.

In fact, in case countervailing buyer power was enough to constrain the setting of termination prices, a decline in termination prices would have taken place over the last few years, which has not in general been the case, given that even the smaller operators have charged prices broadly in line with maximum levels allowed.

4.1.3.3. Countervailing buyer power - conclusion

In the light of the analysis set out in the preceding sections, ANACOM believes that there is no information available that leads to the conclusion that the countervailing buyer power restricts or limits the setting of termination prices charged by operators in the market for call termination on the public telephone network.

4.1.4. Individual dominance – conclusion

The existence of high barriers to entry into these markets, the history of prices charged, as well as the absence of evidence that the countervailing buyer power is exercised so as to constrain the setting of termination prices, do not contradict the presumption of dominance that results from the fact that operators providing call termination at a fixed location hold 100% market share.

Information available suggests that all providers of the fixed telephone service that supply wholesale termination at a fixed location hold SMP in the provision of termination on their own networks.

Without prejudice, ANACOM believes that, in the light of the analysis developed in this chapter and given (i) the size of MEO's commercial operation, being present in several retail and wholesale markets, (ii) the number of accesses it holds compared to the total

number of accesses in the market, around 50% of the market and exceeding its immediate competitor by more than 15%, (iii) the volume of traffic that is terminated on its network and (iv) the characteristics of this network, namely its extension compared to other competing networks, it is deemed that this company continues to hold a special and differentiated position in these markets, which justifies a different treatment at the level of the imposition of *ex ante* regulatory obligations.

4.2. Joint dominance

Joint dominance criteria do not apply to this market.

4.3. Forward-looking analysis

ANACOM takes the view that all factors that justify the designation of companies that operate on the wholesale market for call termination on individual public telephone networks at a fixed location as companies with SMP will not change in the short/medium term, until the next assessment of SMP.

It is stressed in the scope that market shares held by Grupo NOS (which aggregates NOS Comunicações, S.A. as well as NOS Açores Comunicações, S.A. and NOS Madeira Comunicações S.A.) are significantly lower than those held by MEO.

4.4. Assessment of SMP - conclusion

ANACOM considers that all operators providing the voice call termination on individual public telephone networks at a fixed location hold SMP in this market, this group of operators including all those who own geographic and nomadic numbering resources (30 range).

This conclusion is supported by the fact that a 100% share exists, as voice call termination at a fixed location is provided under a monopoly regime, by the persistence of high entry barriers, by the evidence that termination prices only decrease further to regulatory intervention, and by the absence of significant bargaining power on the part of other providers, so as to limit the ability of providers of fixed telephone services to behave in a largely independent manner. As such, these operators are deemed to have conditions and incentive, in the absence of *ex ante* regulation, to behave to an appreciable extent

independently of its competitors and customers, and to practise excessive termination prices, increasing their revenues and costs of competitors.

Some providers that supply the fixed telephone service or the VoIP service (including nomadic VoIP) on the retail market, and which are provided with numbering resources (E.164) for the purpose, may in fact not earn at wholesale level any revenues for the provision of call termination in numbers concerned. This situation occurs where an agreement is concluded between these providers and third parties on which their activity relies, whereby revenues that result from the provision of call termination in numbers of the provider supplying the retail service belong to the supporting provider.

However, it is deemed that the provision of telephone communication services at a fixed location (including VoIP and nomadic VoIP services) and holding the corresponding numbering resources endows the provider with the power to act and control call termination on those numbers, at the level of termination prices charged, regardless of the type of contract concluded with the operators of the supporting network, which could be amended over time or even replaced, at a later stage, by a provision that entirely relies on a self-owned network. Accordingly, operators identified as having SMP in the market under analysis are as follows:

AR Telecom - Acessos e Redes de Telecomunicações, S.A.;

Compatel, Limited;

COLT Technology Services, Unipessoal, Lda;

Dialoga - Servícios Interactivos, S.A.;

G9SA - Telecom, S.A.;

IP Telecom, Serviços de Telecomunicações, S.A.;

MEO – Serviços de Comunicações e Multimédia, S.A.;

NOS Açores Comunicações S.A.;

NOS – Comunicações, S.A.;

NOS Madeira Comunicações S.A.;

NOWO Communications, S.A.

ONITELECOM - Infocomunicações, S.A.;

Orange Business Portugal, S.A.;

OVHHOSTING - Sistemas Informáticos, Unipessoal, Lda.;

VODAFONE PORTUGAL - Comunicações Pessoais, S.A.;

VOIP-IT, LDA;

VOIPUNIFY TELECOM, LDA;

VOXBONE, S.A..

Without prejudice to the need for new market analyses concerning providers of telephone communication services provided at a fixed location that start operations further to the approval of this decision, where ANACOM is required to intervene before the referred analyses are concluded, under the administrative dispute-settlement procedure provided for in articles 10 to 12 of ECL, in particular in the scope of the provision of the wholesale voice call termination service, including prices of wholesale voice termination on fixed networks charged by the referred providers, the Regulatory Authority will in principle consider that obligations imposed in this analysis are an appropriate reference for decisions to be adopted in this context with respect to new entrants.

5. Imposition of obligations on the market for call termination on the public telephone network at a fixed location

In preceding sections, the wholesale market for voice call termination on public telephone networks at a fixed location was identified and analysed, having been concluded that all operators providing the referred wholesale call termination service have SMP in the respective markets.

In markets where SMP is deemed to exist, ANACOM is required to impose one or more regulatory obligations or to maintain or amend these obligations, where they are already in place[67]. In this context, it is stressed that it is important to remedy market failures through measures imposed directly at the source, a principle which is in fact laid down in the regulatory framework itself [cfr. point b) of paragraph 1 of article 85 of ECL], which gives priority to the imposition of obligations at the level of wholesale markets over their imposition in downstream retail markets. Notwithstanding, it must be referred that the primacy of the imposition of obligations on wholesale markets must be duly in line with the objective laid down in article 5 of ECL to promote efficient investment on infrastructure and innovation.

In general terms, when imposing, maintaining, altering or withdrawing obligations, ANACOM takes into account principles that result from the application of ECL, documents issued by EC and ERG/BEREC, and obviously, regulatory principles and objectives laid down by this Authority.

It is deemed appropriate that such principles are acknowledged by the market and taken into consideration, before any obligation is imposed on the market, and for this reason, such principles are developed in chapter 5.2 hereof.

5.1. Competition problems identified in these markets

This chapter aims very briefly to present the main market failures that may occur, and which in fact take place in specific circumstances, which involve obstacles to the development of competition in downstream markets, to the clear detriment of various players and consumers in general. Without prejudice, throughout the analysis carried out in chapter 5.3, references will be made where appropriate to specific competition

[67] Cf. Guidelines §21 and §114 and articles 56 d) and 59, paragraph 4, of ECL.

problems deemed to be relevant in the scope of the consideration of possible obligations to be applied.

5.1.1. Refusal (or delay) to negotiate and/or provide access

The refusal to negotiate and/or provide access can cover situations of outright refusal as well as situations where the service is provided under unjustified or unreasonable conditions. In both cases, it is a behaviour adopted by undertakings seeking to leverage their market power in certain wholesale markets into retail markets, so as to harm possible or potential competitors.

In these termination markets, the provision of interconnection is fundamental to guarantee that customers of any operator are able to contact and to be reached by customers of other operators. This is thus an indispensable condition for the provision of the retail telephone service, without which such service would hardly be viable.

The refusal or delay in the provision of termination is all the more important where it affects new operators. In these situations, given that their customer database is very short, interconnection with other networks is even more essential.

In this context, the refusal to negotiate and/or provide access prevents the entry of new operators in retail markets, and as such, it restricts free competition.

It is noted also that requests for access to the network of other operators to enable call termination could lead also, in a hypothetical scenario of lack of regulation, to several additional problems such as:

- Delays in the conclusion of interconnection agreements, such as those concerning the establishment of fair and reasonable Service Level Agreements (SLAs);
- Failure to make available wholesale offers that allow competition at retail level on equal terms;
- Imposition of discriminatory conditions on competitors (at the level of higher costs than those borne by the respective services or at the level of the quality of service).

In the scope of network access problems, it is stressed that, in its letter of comments issued on 12.08.2013, EC specifically refers, are far as IP interconnection is concerned, that:

"*Every termination market is likely to be characterised by similar competition problems i.e. strong and persistent incentives for the dominant operator to refuse to provide access and to charge excessive prices.*

(...)

Access problems could, for example, occur at an early stage of IP interconnection development, in particular in relationships where traffic is not balanced and where one of the parties could absorb higher costs of termination services (including transit via a third network) without the need to increase retail prices. Therefore, operators could delay access to their network in an attempt to eliminate direct competitors of a similar size from the market."

5.1.2. Distortions caused by excessive termination prices

The charging of excessive termination prices could be one of the most relevant problems that could take place in the scope of a market where each operator monopolizes call termination on its own network. In fact, in a non-regulated scenario, there would be a general trend and incentives to charge higher termination prices, which on its turn would lead to an increase of retail prices to the detriment of the end user[68].

It is noted that the retail price of a call incorporates the cost that each operator bears with access to termination of third party operators. As such, the price of an off-net retail call will increase with the increase of a termination price, and consequently, if the latter is very high, the former will also be high, depending of the final result of the competitive dynamics.

Moreover, excessive termination prices also lead to distortions in consumer choices that may lead to changes in traffic patterns to the detriment of smaller providers.

As explained further hereunder in the chapter on the price control obligation (chapter 5.3.4), these distortions have impact not only on the allocation of resources, that is, at the level of static efficiency, but they also have a negative effect at the level of competition in downstream markets, affecting dynamic efficiency.

[68] *Vide* Explanatory Note SEC(2009)600 *"(…) under the prevailing CPP principle in the EU, the calling party pays entirely for the call, and the wholesale termination rate paid by the originating operator is normally passed on to its end customer.*"

5.2. Principles to be considered when imposing, altering and withdrawing obligations

In order to mitigate or remove competitive problems in a certain market, in application of paragraph 2 of article 66 of ECL, to remove competitive problems and to reduce their impact, this Authority must impose on companies with SMP obligations deemed to be the most appropriate, insofar as such obligations comply with specific requirements, namely that they:

- Are appropriate to the nature of the competitive problem identified in the stage of SMP assessment, and are proportional and justified in the light of the basic regulatory objectives set forth in article 5 of ECL (article 55, paragraph 3 a) of ECL);
- Are objectively justified in respect of networks, services or infrastructure to which they refer (article 55, paragraph 3 b) of ECL);
- Do not result in undue discrimination in respect of any other entity (article 55, paragraph 3 c) of ECL);
- Are transparent in regard to their purposes (article 55, paragraph 3 d) of ECL).

ANACOM must thus, in strict compliance with national regulatory provisions and the Community directive framework, adopt a proportional and duly justified intervention, imposing a minimum level of obligations to overcome identified competitive problems, which effectively contribute to an evolution towards a competitive situation.

ANACOM's ultimate regulatory objective consists in promoting competition in the provision of electronic communications networks and services and associated facilities and services, contributing to the development of the internal market of the European Union (EU) and promoting the interests of citizens (ECL, article 5). It is especially incumbent on ANACOM to ensure that users derive maximum benefit in terms of choice, price, and quality, to ensure that there is no distortion or restriction of competition in the electronic communications sector, as well as to encourage efficient investment in infrastructures and to promote innovation.

For this purpose, under articles 67 to 76 of ECL, obligations which may be imposed on operators with SMP in relevant identified markets are:

- To meet reasonable requests for access to and use of specific network components and associated facilities;
- Transparency in the publication of information, including reference offers;
- Non-discrimination in the provision of access and interconnection and the respective provision of services and information;
- Accounting separation in respect of specific activities related to access and interconnection;
- Price control and cost accounting.

Where the NRA concludes that obligations imposed under articles 67 to 76 have failed to achieve effective competition and that there are important and persisting competition problems or market failures identified in relation to the wholesale provision of certain access product markets, it may impose, as an exceptional measure, an obligation for functional separation on vertically integrated undertakings [cfr. point b) of paragraph 1 of article 66 and article 76-A].

In the definition of obligations, and in particular as far as the price control and cost accounting obligation in wholesale call termination markets is concerned, account is taken of Commission Recommendation 2009/396/EC of 7 May 2009 on the regulatory treatment of fixed and mobile termination prices in the EU, hereinafter Recommendation on Termination. This Recommendation aims to address significant differences identified between the various Member-States in the regulation of voice call termination prices and price control measures, namely the variety of adopted mechanisms and practises for the respective implementation.

In the analysis and definition of obligations to be imposed (or withdrawn), and as referred earlier, principles established in the scope of ERG Common Position on this issue shall also be taken into consideration, as laid down in the "Revised ERG Common Position on the approach to appropriate remedies in the ECNS regulatory framework"[69], dated May 2006.

On the basis of competitive problems identified above and of regulatory obligations currently in force, imposed under the former market analysis, ANACOM will now identify

[69] Available at: http://www.google.pt/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CCAQFjAA&url=http%3A%2F%2Fpfs.is%2Fupload%2Ffiles%2Ferg_06_33_remedies_common_position_june_06.pdf&ei=iwyUVeXXLsmoyATntYjQCA&usg=AFQjCNEUFKQ8Qiif2lM-Nl7Z499e5n3ExA&bvm=bv.96952980,d.aWw&cad=rja.

obligations which must be maintained, altered or withdrawn, as well as any new obligations the imposition of which is deemed to be justified.

5.3. Regulatory obligations currently in force in the termination market and analysis of future obligations to be imposed on companies with SMP

As stated above, on 8 July 2004, ANACOM's Management Board approved a final decision on the analysis of the wholesale termination market, and taking the Guidelines into account, this Authority reached the conclusion that each operator had SMP on the wholesale market for call termination on its own network, and that it was appropriate, proportional and justified to impose at national level obligations set out in Table 1 and Table 2 hereto, approved by decision of 17 December 2004.

As such, taking into account the principles invoked in section 5.2 above, and with a particular focus on whether measures to be applied are appropriate for dealing with or for mitigating competition concerns to be addressed, the following sections analyse regulatory obligations currently in force, so as to assess whether they should be maintained, amended or withdrawn. It is also examined to what extent additional obligations should be imposed, among those that are susceptible of being imposed on relevant wholesale markets.

5.3.1. Obligation to meet reasonable requests for access (article 72 of ECL)

Under paragraph 1 of article 72 of ECL, "*the NRA may impose obligations on operators to meet reasonable requests for access to and use of specific network components and associated facilities, particularly in situations where the denial of access or the setting of unreasonable conditions would hinder the emergence of a sustainable competitive market at the retail level or harm the interests of end-users*."

In the absence of this obligation, operators with SMP could have an incentive to refuse access to the call termination network, or at least to hinder it, in order to harm any competitors in downstream markets. As such, the imposition of an obligation to meet reasonable requests for access is deemed to be necessary to promote competition, as it is essential for new entrants to be able to terminate calls on other networks.

Specifically as regards MEO and given its size, namely taking into account that the proportion of traffic terminated on this company compared to total traffic of the fixed telephone service is very important, the refusal to provide call termination services, or its

provision under unreasonable conditions, would have a significant impact on retail markets, to the detriment of competition and consequently of customers of those markets.

As such, it is deemed that without this measure, MEO would continue to have a significant incentive to hinder access to the call termination network by competitors in downstream markets, slowing down this process.

In the case of other operators designated as having SMP, it is deemed that in the absence of this obligation, the business process underlying OSP network access could also be hindered, or delayed, compared to a scenario where these operators are subject to a network access obligation. Any obstacles created would affect users in general in terms of the interoperability of services.

In the light of the above, it is deemed that all operators designated as having SMP in this market must remain subject to the obligation to meet all reasonable requests made by other operators for supply of fixed call termination on the network, and to do so under fair and reasonable conditions.

Moreover, since this is an obligation which has been in force for many years, its technical and economic feasibility is already established and no questions remain regarding any risks in terms of the investment made for the provision of access, whereby its imposition is perfectly feasible and entails no additional cost. Without prejudice, there could be situations where this obligation could imply a cost, in particular as a result of the technological development of networks and the consequent transition from TDM interconnection to IP interconnection. Notwithstanding, as evidenced by contracts concluded between ANACOM and operators on IP interconnection, namely as regards technical issues and a feasible timetable for this transition, its impact, specifically at the level of costs, affects the various companies in a different way.

For new companies which already have an all-IP structure, the cost of maintaining network elements that allow the conversion of IP traffic so as to allow TDM interconnection will certainly be higher that the use of IP interconnection. For other, which invested on TDM interconnection over the years, interconnection at various points with other operators where networks and respective traffic are not fully IP, the transition costs to IP interconnection could be significant.

Specifically as regards IP interconnection, EC refers in its letter of 12.08.2013: "*While recognising that terminating operators in general have an economic interest to interconnect, the Commission is of the view that, in the absence of an explicitly imposed*

access obligation, even a general interconnection obligation that might arise from the Portuguese legislation would not allow for a swift resolution of eventual access problems compared to a more specific access obligation imposed as a result of a market analysis.

Access problems could, for example, occur at an early stage of IP interconnection development, in particular in relationships where traffic is not balanced and where one of the parties could absorb higher costs of termination services (including transit via a third network) without the need to increase retail prices. Therefore, operators could delay access to their network in an attempt to eliminate direct competitors of a similar size from the market."

In the light of these comments, ANACOM acknowledges that not imposing an access obligation concerning IP interconnection could be a discriminatory measure, given the need to observe the principle of technological neutrality, and the existence of a similar access obligation as far as TDM interconnection is concerned. It is noted that EC also refers that operators with SMP in these markets "*are in a position to act independently of their competitors and customers. Therefore, they are also in a position to refuse access to certain operators (e.g. new entrants, including those established in other Member States) forcing them to interconnect indirectly and thereby bearing additional costs resulting from the need to buy transit services*", thereby adding "*that different regulation of voice call termination in fixed networks (where competitive conditions and competition problems are the same) may increase the costs for the provision of fixed services and lower the ability of other operators and service providers (including those established in other Member States) to provide electronic communication services in Portugal*".

As such, acknowledging that existing competition problems identified in chapter 5.1 could affect in equal measure TDM interconnection and IP interconnection, ANACOM considers that the obligation imposed on all SMP operators to meet all reasonable requests for supply of fixed call termination services, under fair and reasonable conditions, applies on an equal basis to TDM and IP interconnection.

In addition, given what was referred above on interconnection costs, it is deemed that the immediate provision of IP interconnection should not result in the immediate withdrawal of access to TDM interconnection, where the latter has already been agreed on, as there are operators that are not prepared on the very short term to carry/deliver all traffic over IP, on account of the lack of appropriate equipment as well as for migration-related costs.

Taking into account that MEO's fixed network is the most relevant at national level, and has the highest number of accesses and customers, originating and terminating also the highest volume of traffic, this Authority considers that MEO should integrate in its interconnection reference offer all relevant aspects concerning the IP interconnection architecture it intends to adopt.

For this purpose, MEO is required to present to ANACOM an IP interconnection architecture proposal, which shall take into account the active contribution of OSP, within at the most 4 months from the publication of the final decision on this analysis, which shall be analysed by this regulator, in articulation with all market players. This proposal must in particular cover information on: (i) architecture and topology of the new network, which must lead to a reduction of GIP while taking due account of redundancy issues, (ii) technical characteristics of IP interfaces and description of mechanisms to be implemented in order to ensure the quality of service and procedures related to number portability, (iii) expected impact on existing GIP and suggestions of alternatives that could limit such impact, as well as a GIP migration plan. The referred proposal must bear in mind contributions that the various OSP may wish to put forward, which for this purpose must be requested in due time.

In order to speed up articulation with OSP, and without prejudice to other contacts that MEO may establish with each relevant operator to prepare the referred proposal, the Regulatory Authority with promote an open meeting for stakeholders. On this occasion, which shall take place two months after the publication of the final decision on the market under consideration, MEO shall be required to present the outlines of its intended proposal for IP interconnection architecture, and alternative operators will have the opportunity to present their suggestions and concerns. The information collected at this time shall be duly weighted in the proposal to be presented by MEO, and where it is not possible to accommodate the wishes put forward at the meeting, MEO is required to justify in its proposal the reasons that prevented the inclusion of information concerned.

The approval of this proposal, which shall affect the various market operators on the market, shall determine for all operators the start of the transition period for provision of IP interconnection and the deadline for its provision so as to include all traffic requested. Notwithstanding, this is without prejudice to its immediate provision, if agreed between operators on the market.

In this respect, so that all may benefit from IP interconnection, it is deemed that all operators with SMP in these markets are required to provide IP interconnection services, which may be implemented in a gradual manner, according to determinations to be approved by ANACOM, further to the proposal to be presented by MEO, which shall integrate the contribution of several OSP.

Conclusion

As referred above, ANACOM takes the view that the obligation to meet reasonable requests for access and to allow network access under fair and reasonable conditions, imposed on all providers designated as having SMP in these markets, must be maintained.

Any refusal for access on grounds of alleged unreasonableness must be substantiated, within 10 working days from its communication, both to ANACOM and to the interested party. In connection with this obligation, there is also another obligation, in the scope of former market 4 (wholesale market for access to network infrastructure at a fixed location, of Recommendation 2007/879/EC), concerning collocation in exchanges, which among other aspects is intended to facilitate access by other operators to termination on the fixed network, which will be maintained.

ANACOM believes that the obligation to meet reasonable requests for access, namely at the level of the provision of the call termination service, imposed on all operators with SMP in these markets, and covering both TDM and IP interconnection, complies with regulatory objectives defined in article 5 of ECL and meets conditions defined in paragraph 3 of article 55 of the same statutory instrument, given that its imposition is justified in the light of the harmful impact on competition that would result from the absence of this obligation. It is not discriminatory, as it is applied on all operators with SMP, being deemed essential that all operators are able to provide call termination services. It is proportional, as it is required to ensure competition in downstream markets, however, as unreasonable requests are not required to be met, it is the least restrictive obligation that may be imposed to address the network access problem. And it is transparent, as objectives of the proposed measure are identified, and it is clear that it is intended to foster competition and to prevent behaviours that may harm final users.

Specifically as regards the IP interconnection issue, ANACOM believes that the provision of IP interconnection must not result in the immediate withdrawal of access to TDM interconnection, in cases where the latter has already been agreed on.

ANACOM takes also the view, taking into account the size of MEO's network, that this operator must integrate in its interconnection reference offer all relevant aspects concerning IP interconnection architecture, presenting to ANACOM, for this purpose, an IP interconnection architecture proposal, which shall take into account the active contribution of OSP, within at the most 4 months from the publication of the final decision on this analysis, which shall be analysed by this Regulatory Authority, in articulation with all market players. Two months after the publication of the final decision on these markets, ANACOM will hold a meeting for all operators, where MEO is required to present the outlines of its intended proposal for IP interconnection architecture, and alternative operators will have the opportunity to present their suggestions and concerns. In its final proposal (within the referred four-month deadline), MEO is required to justify the reasons that prevented taking proposals of alternative operators into consideration.

The approval of this proposal, which shall affect the various market operators on the market, shall determine for all operators the start of the transition period for provision of IP interconnection and the deadline for its provision so as to include all traffic requested.

It is safeguarded that this must be without prejudice to the provision of IP interconnection within a demanding timetable, or even immediately, if agreed between operators on the market.

5.3.2. Non-discrimination in the offer of access and interconnection and in the respective provision of information (article 70 of ECL)

The non-discrimination obligation consists, according to article 70 of ECL, "*of the requirement for an undertaking to apply equivalent conditions in equivalent circumstances to other undertakings providing equivalent services and to provide services and information to third parties under the same conditions and with the same quality as the services and information provided to its own departments or to those of its subsidiaries or partners*".

Given MEO's size, the non-discrimination obligation to which the company is currently subject is particularly important, as it prevents the company from leveraging its wholesale termination market power to neighbouring markets.

This obligation specifically aims to avoid an undue discrimination between MEO's retail competitors, or between the latter and mobile operators, in this latter case safeguarding

that values charged for termination on MEO's network do not differ of account of whether the call is originated on the mobile or fixed network.

As such, ANACOM deems that it is crucial to maintain the non-discrimination obligation in the offer of wholesale call termination services, which must be complemented by the transparency obligation, in line with the analysis performed in the respective chapter.

In the context of the previous analysis on the termination market, the ex-Grupo PT was imposed, in the scope of the non-discrimination obligation, the obligation to provide a capacity-based interconnection (CBI) offer.

CBI came against a backdrop where it was considered that, in the light of the emergence at the time of competitive and innovative products and services on the market, the time-based interconnection model would not allow competing operators of ex-PTC to fully replicate, and in a competitive way, certain offers and campaigns made available by the then Grupo PT.

It was referred at the time that "*the introduction of this model would allow operators, in principle, to manage interconnection resources more appropriately, making the best possible use of them according to their traffic needs and profiles, the offer of innovative products and services being enabled for all operators, Grupo PT included, thereby encouraging the use if the fixed network, to the ultimate benefit of users*."

With the introduction of a termination price set on the basis of a Long Run Incremental Costs (LRIC) model, which calculates forward looking long-run average incremental costs of an operator that uses the most efficient technology available in the relevant timeframe, it is reasonable to assume that the CBI model could not lead to a greater level of efficiency than the one ensured by the price set along this line (*vide* 5.3.4 below).

ANACOM acknowledges that the CBI model, in this context, is no longer relevant where the cost-oriented pricing of an efficient operator has been established. Consequently, meeting concerns showed both by MEO and by the then OPTIMUS in the scope of the prior consultation and prior hearing procedures related to the DD of 1.03.2013, the Authority believes that this offer may be discontinued.

In the light of the above, without prejudice to the fact that in the scope of measures approved on 27.08.2013 it was determined that the then PTC would be allowed to discontinue the referred offer within 3 months from the publication of the final decision on these markets, whereby relevant OSP should be given with two months' notice of this

intention, and bearing in mind that it is not likely for any interest in the referred offer to arise, and having elapsed some time since ANACOM's provisional decision, this Authority believes that the maintenance of the capacity-based interconnection is no longer justified, thus MEO is allowed to discontinue it with immediate effect, without prejudice to the following paragraph.

As regards interconnection circuits contracted for CBI purposes, in the light of the above, ANACOM's determination according to which OSP could choose to cancel the referred lines as from 01.10.2013 remains valid, and any penalties for early cancellation resulting from the system in force at the time may only be applied further to an assessment of the matter on the part of ANACOM.

As far as other OSP with SMP are concerned, it is stressed that in the letter on Case PT/2013/1491, sent to ANACOM on 12.08.2013, the Commission expressed concerns, given that no non-discrimination obligation had been imposed on alternative operators, about the absence of any safeguard which would prevent SMP operators from applying different terms and conditions on interconnecting operators, via TDM or IP interconnection.

In fact, without a non-discrimination obligation, there could be incentives for operators with SMP to impose discriminatory conditions on other companies, namely at the level of charged wholesale prices, especially in a framework where a new interconnection model is introduced. This incentive will be greater where companies likely to be discriminated are competitors in the retail market where companies with SMP operate, whereby the latter would be able to leverage their wholesale market power to their retail market position.

Accordingly, as a new interconnection model is now being introduced, it is deemed that all operators with SMP in these markets must meet a non-discrimination obligation, involving tariff aspects and other aspects of a technical nature associated to the offer of the service, namely in terms of the interconnection method, quality of service and supply and repair times. It is noted that this obligation is complemented by a transparency obligation, which also applies to all operators with SMP.

The non-discrimination obligation should be interpreted so that prices of call termination at a fixed location should be identical regardless of the origin of the call and irrespective of the operator delivering it to the operator with SMP, taking into account that the service provided is the same. Termination prices must also be identical irrespective of the buyers of the service, thus taking into account chapter 5.3.4.6 as regards termination of calls

originated outside of the European Economic Area (EEA), such calls are not covered by this obligation.

As far as this obligation is concerned, it must be stressed that it does not prevent the provider of the call termination service from requiring from providers purchasing the service that delivered voice calls identify in some way the origin of the call or the caller.

This obligation also implies that termination of calls delivered by an operator on whom the call was not originated (transit traffic) must not be refused or hampered through the imposition of specific procedures or practises. This obligation requires only that traffic delivered via transit is accepted, and providers of the call termination service must not be constrained in the way how they deliver to third party operators traffic belonging to them, being able to choose between direct or transit interconnection as they see fit.

Conclusion

In the light of the above, and as far as MEO is concerned, ANACOM takes the view that the non-discrimination obligation remains appropriate and should thus be maintained in the time horizon of this analysis, being applied to third parties, involving tariff aspects and other issues of a technical nature associated to the offer of the service, namely in terms of quality of service and supply and repair times.

The obligation to prove a CBI offer ceases to apply, with immediate effect, for the reasons identified earlier. As regards interconnection circuits contracted for CBI purposes, and in the light of the above, ANACOM's determination according to which OSP could choose to cancel the referred lines as from 01.10.2013 remains valid, and any penalties for early cancellation resulting from the system in force at the time may only be applied further to an assessment of the matter on the part of ANACOM.

It is deemed appropriate to impose a non-discrimination obligation on all operators with SMP in these markets.

This obligation does not apply to termination of calls made outside the EEA.

The non-discrimination obligation does not prevent the provider of the call termination service from requiring from providers purchasing the service that delivered voice calls identify in some way the origin of the call or the caller.

This obligation also implies that termination of calls delivered by an operator on whom the call was not originated (transit traffic) must not be refused or hampered through the imposition of specific procedures or practises.

The non-discrimination obligation imposed on all operators with SMP meets the regulatory objectives defined in article 5 of ECL, by promoting competition and by ensuring maximum benefit for consumers. It also fulfils conditions defined in article 55 of the same statutory instrument, as it is a proportional and justified measure, which ensures that purchasers of services concerned are not discriminated, thus guaranteeing that all providers of retail telephone services and, consequently, consumers, are not penalised by virtue of possible discriminatory practises.

The obligation is also transparent since the problems which it is intended to solve and the objectives to be achieved, as well as their effects, are identified, and it is non-discriminatory.

5.3.3. Transparency in the publication of information, including reference proposals (articles 67 to 69 of ECL)

The obligation for transparency "*consists of the requirement to publish in the appropriate form specified information in relation to operator access and interconnection, such as accounting information, technical specifications, network characteristics, terms and conditions for supply and use, including prices and any conditions limiting access to or use of services and applications where such conditions are allowed by applicable law or regulations*"[70]. In addition, "*the NRA may* (...) *determine, in particular to operators which have obligations of non-discrimination, that access or interconnection reference offers be published* (...)[71]", and also how such offers are to be published.

The imposition on companies of ex-Grupo PT of an obligation for transparency results from the previous market analysis, and it entail the duty to publish a RIO concerning its fixed network as well as specific information related to several issues, such as: (i) pricing, terms and conditions; (ii) technical information, and (iii) information on quality of service. These measures were set out in order to make available information required by OSP to

[70] Cf. article 67 of ECL.

[71] Cf. article 68 of ECL.

develop their own offers and services and to promote the development of an effectively competitive market.

It must now be examined whether objectives underlying the imposition of this obligation remain, and in particular to assess what impact would its withdrawal have.

In the market for call termination, the referred obligation has two main objectives: (i) to monitor any anti-competitive behaviour, namely behaviour that could put at risk compliance with the non-discrimination obligation, and (ii) to make OSP aware of terms and conditions under which they may purchase this wholesale service. Moreover, the publication of a RIO speeds up the interconnection agreement negotiation procedure.

It is deemed that, in case the transparency obligation and the associated obligation to publish the RIO were withdrawn, the possibility of detecting discriminatory behaviours would be significantly affected, which could undermine the effectiveness of the non-discrimination obligation and, consequently, lead to the emergence of adverse situations.

Moreover, as this is an obligation which was already in force under the former regulatory framework, it is completely feasible, and its imposition will not represent any extra costs for MEO. This obligation provides also a guarantee of stability and predictability of the market, promoting competition and, thus, deriving benefits to final consumers.

MEO must thus remain subject to the obligation to publish and update the RIO, in the respective website. It is deemed that the information currently available in the scope of this wholesale offer continues to be relevant and appropriate, as such, this publication must continue to cover the issues previously defined, as well as to clearly point out the alterations introduced by each version of these offers.

In the light of the chapter on non-discrimination, MEO is no longer subject to the obligation to publish a capacity-based interconnection offer.

Furthermore, in parallel with the publication of RIO, MEO must also remain subject to the obligation to publish on the Internet or at the already available Extranet platform information on the quality of service it intends to provide. As such, and again without prejudice to the identification, on a case-by-case basis, of additional indicators and parameters which are deemed appropriate to be integrated in RIO, MEO must publish, in an aggregated form, the levels of quality provided for in the RIO, namely the quality of interconnected operator networks, the quality of circuits for traffic interconnection and for internal extensions for traffic interconnection, and the loss degree for each interconnection

beam. The obligation for publication of levels of quality of operator networks shall be dealt with in the scope of the review of the reference interconnection offer.

MEO is also required to publish prices, terms and conditions associated to the provision of the call termination service at a fixed location, as well as technical information, including information on network settings, location of network access points and technical standards (including any restrictions on use and any other security issues). Relevant information on network settings must also include information on the function and connectivity of points of access.

Subject to standards yet to be approved in the scope of the GIP migration plan which MEO must include in its proposal for IP interconnection architecture (*vide* section 5.3.1 above), there is also an obligation, which already exists in the scope of RIO and which applies to all operators, to communicate any alterations that affect MEO's or operators' network structure and which have implications on interconnection principles, at the latest six months in advance, so as to allow operators to undertake the necessary adjustments to their networks. ANACOM admits that the referred time-limit may be shortened insofar as all interconnected operators are consulted, and no objections are raised on the subject by any of the beneficiaries of the interconnection offer.

Moreover, it is deemed that any other alterations which may also have an impact on OSP should be notified by the concerned operator at the latest two months in advance.

As regards operators with SMP in these markets (other than MEO), taking into account that one of the targets of the obligation for transparency is to foster predictability and certainty in the environment where operators develop their activities, ANACOM deems it appropriate to impose this obligation on these operators also.

As such, not only MEO, but also operators with SMP in these markets, are subject to an obligation for transparency, which requires, in addition to what was provided for as regards alterations with impact on other operators which must be communicated in advance, publication on the respective website of information on network settings, including location of network access points, as well as information of the tariff structure applied to termination services provided by these operators, even where the publication of this information consists of a reference to the information provided at the supporting operator's network, where appropriate.

The obligation for publication of prices, network settings, GIP location and tariff structure, which applies to all operators, MEO included, covers the provision of call termination at a

fixed location regardless of whether it relies on the fixed or the mobile network - homezone service.

In the scope of this obligation, and where ANACOM deems it to be appropriate, in order to check compliance with any regulatory obligation or in the scope of the settlement of disputes, the Authority is entitled to request the submission of interconnection agreements concluded between operators. It may also request, in line with the chapter on the obligation for accounting separation and cost accounting, specific information on costs, namely in the scope of the update of the fixed termination costing model.

Conclusion

The obligation for transparency is imposed on all operators with SMP in these markets, which for this purpose are required to publish at their websites information on network settings, including location of network interconnection points, as well as of clear and transparent information on the tariff structure that applies to the call termination service. In line with chapter 5.3.4.6, it is deemed that this obligation for publication of termination prices does not apply to termination of calls originated outside the EEA, however these calls are subject to other determinations that integrate this decision.

Where ANACOM deems it appropriate, it is entitled to request the submission of interconnection agreements concluded between operators as well as information on costs, namely in the scope of the update of the costing model.

As far as MEO is specifically concerned, the company is required to maintain the publication and update of its fixed network RIO, in its website, as well as the publication of information on quality of service, according to the obligation to which it has been subject (in this context, the obligation for publication of levels of quality of operator networks shall be dealt with in the scope of the review of the RIO), either on the Internet or at the already available Extranet platform.

MEO is also required to publish prices, terms and conditions associated to the provision of the termination service, as well as technical information, including information on network settings, location of network access points and technical standards, and save for alterations provided for and approved in the scope of MEO's proposal for IP interconnection architecture, the company is also subject to the obligation for prior notice of alterations that affect principles of interconnection with OSP, at least six months in

advance. Other alterations with impact on OSP must be notified by MEO up to two months before they take effect.

Subject to deadlines related to the IP migration plan that apply to MEO and other operators, OSP are also required to communicate any alterations that affect their network structure and which have implications on interconnection principles, at the latest six months in advance. As regards this obligation, which is imposed on all operators (MEO included), it is admitted that the referred time-limit may be shortened insofar as all interconnected operators are consulted, and no objections are raised on the subject by any of the beneficiaries of the interconnection offer. OSP are also required to communicate any other alterations with impact on third party operators up to two months before they take effect.

Obligations for publication of prices, network settings, GIP location and tariff structure, which apply to all operators, MEO included, cover the provision of call termination at a fixed location regardless of whether it relies on the fixed or the mobile network - homezone service.

ANACOM believes that the proposed obligation for transparency, as it applies to all operators, is in line with regulatory objectives set out in article 5 of ECL, being justified by the need to make all operators aware of terms and conditions, namely as regards prices effectively in force at any given time, thus being essential to ensure certainty and predictability of negotiations and to speed up implementation of interconnection among operators. It is non-discriminatory as it applies to all operators with SMP, as all operators require information concerned to interconnect speedily and efficiently. It is also proportional as it does not impose a significant burden on operators with SMP, given that only a copy of interconnection agreements and a simple disclosure of information on prices and network settings is required, and it is transparent with relation to the intended purposes.

As regards specific obligations imposed on MEO, it is stressed that they are deemed to be justified given the need to provide the market with all information required in the scope of the interconnection with the network which is largest on the market and which receives the highest volume of traffic, such information thus being crucial to ensure greater security and predictability in negotiations, and consequently to speed up the implementation of interconnection between operators. These obligations are non-discriminatory and proportional, as they reflect the scale of the company to which they are applied, and aim

to ensure that the non-discrimination principle is not put at risk, ensuring the absence of adverse competition conditions in downstream markets. They are transparent, given that their imposition clearly results from the need to ensure the awareness of conditions for provision of the call termination service, thereby contributing towards market stability.

5.3.4. Price control (article 74 of ECL)

5.3.4.1. Recommendation on Termination

As regards the definition of the price control obligation, as referred earlier, due account was taken of Commission Recommendation on Termination[72].

The Recommendation on Termination establishes that NRA must ensure that, as from 31.12.2012, termination prices are set at the level of efficient costs based on the application of the bottom-up (BU) model, using the LRIC costing model to calculate long run incremental and forward-looking costs of an operator using to the most efficient technology in the relevant time horizon.

The Recommendation focuses on the harmonization of the application of cost accounting principles in termination markets, establishing a common approach for voice call termination on individual electronic communications (fixed and mobile) networks, fostering efficiency and sustainable competition, and maximizing benefits for consumers in terms of prices and offers of services. This EC Recommendation aims also to remove competition distortions between fixed and mobile markets.

In this context, the Recommendation refers that "(...) *The further termination rates move away from incremental cost, the greater the competitive distortions between fixed and mobile markets and/or between operators with asymmetric market shares and traffic flows*", specifying as regards the LRIC model that "(...) *it is justified to apply a pure LRIC approach whereby the relevant increment is the wholesale call termination service and which includes only avoidable costs*".

It follows from the Recommendation on Termination that, in the development of the costing model used to set termination prices, NRA must calculate the difference between the total long-run costs of a hypothetical efficient operator providing the full range of

[72] Commission Recommendation of 7 May 2009 on the regulatory treatment of fixed and mobile termination rates in the EU (2009/396/EC); available at http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:124:0067:0074:PT:PDF

services taken into account and the total long-run costs of a hypothetical efficient operator providing the full range of services taken into account except for the wholesale call termination service supplied to third parties.

This difference consists of the incremental (or "avoidable") costs associated to the provision of the call termination service, which divided by the number of termination minutes, results in the value of the unit cost of providing that service. The Recommendation thus excludes from this calculation any common costs incurred by operators in the scope of their activities, as well as other types of increments associated to the recovery of costs that are not related to the termination traffic, namely costs of investments in the network for the purpose of coverage expansion.

The Recommendation on Termination thus provides that NRA are required to guarantee the implementation, by 31.12.2012, of termination prices at the level of a hypothetical efficient operator. Where resources available to NRA make it impossible to develop a costing model within the timeframe defined, the Recommendation provides for the possibility of setting interim prices based on an alternative approach[73] until 01.07.2014 at the latest.

It is noted that in the letter sent to ANACOM on 12.08.2013, EC criticized ANACOM for not ensuring the setting of termination prices at an efficient level by 31.12.2012: "*The Commission notes that ANACOM foresees pure BU-LRIC FTRs based on benchmarking to be implemented as of 1 October 2013, which is not in line with the Termination Rates Recommendation, according to which NRAs should ensure that termination rates are implemented at a cost-efficient (pure BU-LRIC) level by 31 December 2012*".

Lastly, it is stressed that under ECL[74] and the Framework Directive[75], Member States must ensure that NRA take the utmost account of EC Recommendations on the harmonised application of the provisions in that Directive and specific directives, namely as regards harmonisation at European level and development of the internal market. As this is an objective which National Regulatory Authorities are required to meet, any deviation from Recommendations adopted by EC, and in this case the Recommendation on Termination, must be notified to EC and duly justified.

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[73] This alternative approach must result in outcomes consistent with the Recommendation and generate efficient outcomes consistent with those in a competitive market; such outcomes must not exceed the average of the termination rates set by NRAs implementing the recommended cost methodology.

[74] Article 6 of Law No. 5/2004, as amended by Law No. 51/2011, of 13 September.

[75] Paragraph 2 of article 19 of Directive 2002/21/EC, of 07.03.2002, as amended by Directive 2009/140/CE, of 25.11.2009.

5.3.4.2. The obligation imposed in 2004

In its decision of 17.12.2004, ANACOM deemed it appropriate to imposed the price control obligation in the wholesale termination market on companies of the then Grupo PT, with a view to promote efficiency and sustainable competition. ANACOM referred at the time that when it is impossible to duplicate the infrastructure of the incumbent (at physical or economic levels), interconnection prices are crucial for the development of competition. The Authority further stressed that the establishment of such prices, in addition to promoting competition and maximizing benefits for consumers, should also bear in mind the safeguard of incentives for the incumbent to continue to invest in the network and the maintenance of regulatory costs, in terms of information, within acceptable limits.

Up to October 2013, wholesale termination prices were regulated according to the principle of cost-orientation (as from October 2013, prices were set on a benchmark of countries which had already notified "pure" LRIC prices to EC). In the application of this principle, ANACOM relied on the information registered in MEO's CAS, using as additional reference EU practises and criteria of economic efficiency.

In this scope it must be referred that in the decision of 2004 on the imposition of regulatory obligations in these markets, several methodologies were weighted in the establishment of termination prices.

In this context, the definition of prices took account of approaches such as historic costs, LRIC, ECPR (Efficient Component Pricing Rule), retail minus rule and overall price-cap. From the analysis conducted at the time, ANACOM concluded as follows:

"*It clearly results from the above that the choice of the specific method to be used in order to set the interconnection price depends on a combination of regulatory objectives. (...) In this case, ICP - ANACOM considers that, given the situation of dominance enjoyed by Grupo PT in wholesale markets for interconnection to the fixed network, a particular attention should be given to incentives for the promotion of competition, without neglecting the need to foster network investments. The setting of prices on the basis of a LRIC model, in a version that allows the recovery of fixed costs, at least partly, thus seems to be an appropriate and proportional measure.*

The development of cost accounting models of a LRIC-type is a complex task which required, as referred above, a wide set of information, much of which of a forward-looking nature. ICP - ANACOM is working towards that goal, but believes that it will be not

possible to promote the respective implementation immediately. The regulation of access prices to be applied must thus represent a possible proxy for the LRIC model, while results for this model are not available.

Taking into account conditions associated to the interconnection market, namely the rapid evolution of factors with direct influence on charged prices, such as volumes of traffic, the number of active operators, the variety of services provided, among others, ICP - ANACOM takes the view that the review of prices, in a transitory phase, must be based on such evolution as well as on expectations as regards the productive and allocative efficiency on the part of the operator with SMP. This is the methodology which best allows the combination of these characteristic market conditions with regulatory objectives, namely the setting of prices that promote effectiveness and sustainable competition and that maximize benefits for the consumer, while coming effectively and gradually closer to the LRIC model.

As such, Grupo PT must ensure that interconnection prices are established on the basis of forward-looking costing data, ICP - ANACOM considering that the indicated methodology is the most appropriate at this point in time."

The obligation imposed on other operators with SMP, also defined in determination of 17.12.2004, was based on the principle of deferred reciprocity, and established that prices of call termination on the network of those operators would be based on a maximum difference by 20% in relation to prices charged by ex-Grupo PT. Subsequently, determination of 26.10.2005 specified that OSP should set termination prices so as to result on an average revenue per minute up to 0.90 Euro cents (on the basis of a methodology which was defined in the meantime)[76].

As regards the price control obligation imposed on OSP, ANACOM, taking into consideration current practises in the EU, as well as the competitive disadvantage incurred by OSP as far as the data of start of operation is concerned, took the view that there could be in fact a time lag factor to be applied to the principle of reciprocity. The application of this obligation was thus aimed to allow OSP to adjust to cost-oriented termination prices applied by Grupo PT during the period in which they were allowed to charge higher prices than the ones applied by this group. At the same time, and in addition to the contribution of this measure to foster investment in self-owned

[76] Determination of 26.10.2005 (http://www.anacom.pt/streaming/chamadas_rfixa_delib19out2005_2.pdf?contentId=303666&field=ATTACHED_FILE).

infrastructure, this solution also aimed to encourage OSP to increase efficiency by bringing their prices closer to regulated rates of ex-Grupo PT. Another reason for the remedy applied in 2004 consisted in granting greater predictability as far as prices practised on the market were concerned, with benefits for the final user. In fact, it was important to guarantee that excessive termination prices would not result in abnormally high retail prices in inter-network (off-net) calls, adversely affecting the final user.

In a hypothetical scenario of absence of regulation, and given that each operator has SMP in the market for call termination on its own individual network, there would be a global trend to increase termination prices, a cost which would be transferred to retail downstream markets, to the clear detriment of consumers and with consequences at the level of social welfare.

More than ten years after the analysis that was developed and the respective conclusions, and as market remains fundamentally unchanged in its definition (which remains restricted to each network), and given that its fundamental features, as well as problems attached to these characteristics, remain unchanged, there seem to be no reasons not to impose a price control obligation on all operators with significant market power on these markets.

It is noted that, if the price control obligation was withdrawn, this would result in greater uncertainty as regards these wholesale prices. From the analysis of price proposals of ex-PTC for wholesale termination and the evolution of termination prices of OSP (*vide* 4.1.1.2 above), it is expected that prices for this service would also increase, with a serious risk for the implementation of abnormally high prices, due to the monopolistic nature of its provision and the absence of any incentive to decrease prices; a situation which may only be effectively countered through cost-orientated price control.

ANACOM also believes that there are no reasons to change the conclusion according to which a LRIC-based costing methodology is an appropriate approach to set termination prices.

5.3.4.3. The “pure” LRIC option

As such, as regards the choice of the costing model establishing the interconnection price, in compliance with the Recommendation on Termination, ANACOM deems it appropriate that these prices are set at the level of efficient costs based on the application of the bottom-up model, using the LRIC costing model, thus contributing to a significant

reduction of termination prices and fostering the development of competition in downstream markets.

In the scope of the option for a LRAIC "+" model (which incorporates a set of common costs to all services) or for a "pure" LRIC model (which is based on avoidable costs of the termination service, excluding any common costs), ANACOM took the view, in the analysis of the appropriateness of the methodology laid down in the referred Recommendation, and of its compatibility with objectives of the national and European regulatory framework, that the choice for the latter suits best the national reality as it is the model that most effectively fosters competition in downstream markets between operators with different market shares, that best contributes to a level playing field in those markets, to the increase of market contestability, to the reinforcement of operator investment capacity and to the welfare of consumers in general.

In any case, the choice for a "pure" LRIC model finds also support in the application of EC Recommendation, and there seem to be no objective reasons or specific national circumstances for an approach other than the one already applied in the scope of mobile network termination.

Without prejudice to specificities of the model application, analysed in a separate document subject to a public consultation in 2014, ANACOM believes that the "pure" LRIC model does not put at risk the principle of cost-orientation of prices that applies to this market.

It is noted in particular that, if the application of a "pure" LRIC model does not allow the recovery of common costs, as indicated by the Commission in the referred Recommendation, this recovery should occur in the scope of services other than call termination, namely via non-regulated retail products[77], where, unlike the former, effective competition exists, the efficiency of operators thus being promoted, which would not be the case if this recovery was to take place in the scope of a service of a monopolistic nature.

In line with the approach set out in the Recommendation on termination and respective Explanatory Note, ANACOM believes that the consideration of termination prices close to marginal costs through the application of prices equivalent to those obtained with the

[77] Cf. p. 17 of the Explanatory Note: "(…) *Given the two-sided nature of call termination, not all related termination costs must necessarily be recovered from the wholesale charge levied on the originating operator. Even if wholesale termination rates were set at zero, terminating operators would still have the ability to recover their costs from non-regulated retail services*."

application of the "pure" LRIC costing model leads to greater efficiency in the functioning of the market, with benefits at the level of competition. Among other factors, taking into account that the billing system in force in our country - the "calling party pays" system - where the cost of the call is fully borne by the caller, the existence of call externalities (that is, the utility derived for the receiver from a call received, which he/she does not pay[78]), determines that the characteristics of the "pure" LRIC model are more appropriate than those of the LRAIC "+" model.

The "pure" LRIC option, which only covers avoidable costs directly related to the termination service offer, is closer to the objective of granting greater efficiency to the market, thereby maximizing user benefits and avoiding cross subsidization between operators, by making use of excessive margins of the termination service, associated to traffic imbalances, and consequently, reducing barriers to entry of new operators and the expansion of smaller players.

The consideration of costs other than those deemed to be avoidable for the termination service would lead to the increase of costs of off-net calls, to the detriment of smaller operators which are most dependent on these calls.

In this respect, it is noted that in fixed and mobile retail markets, given the prevalence of the referred "calling party pays" system, the so-called tariff-mediated network externality effect exists. This is an effect that results both from the existence of above-cost termination prices and from a price differentiation that exists in some situations between on-net (to the same network) and off-net (to other networks) retail prices. This price differentiation, or price discrimination, enhances the network effect that exists in markets for telephone services, whereby the utility derived for a customer of a service increases with the number of customers that uses that service.

The price differentiation between on-net and off-net calls thus contributes to create an increased network effect, where the utility of the customer of a given network will depend on the number of customers of that same network with whom a given person contacts and

[78] The termination service could thus be included in the concept of a two-sided market, that is, a market where parties, usually two different groups of users, are brought together in a single platform, and where relevant network externalities exist.

The call termination service provided by a given operator brings together customers of other operators when the latter make calls and their own customers as receivers of such calls. A positive externality exists in both situations. There is a natural benefit for the calling party (the customer of another network), which is the possibility of reaching the receiver and, at the same time, usefulness for the called party (the customer of the network providing the termination service), as it is able to receive calls. Given the nature of the service, that generates benefits for both parties, costs associated to call termination do not necessarily need to be recovered on the basis only of the respective wholesale price.

who contact him/her at lower prices, precisely due to the fact that on-net call prices are concerned.

This effect gives larger operators an advantage over smaller operators, on account of the higher relative weight of off-net calls in the total of calls originated by these latter operators.

Given the simultaneous existence of this price differentiation and of termination prices exceeding marginal costs, smaller operators have but a limited capacity to react to the competitive disadvantage that arises from the increased network effect. The removal or mitigation of this effect could involve the decrease of off-net prices to bring them closer to prices charged for on-net calls of larger operators. However, this strategy leads to the increase of off-net traffic, creating situations of traffic imbalance which result in financial transfers from smaller operators to larger ones.

In the light of the above, it is stressed in this context that benefits obtained by larger operators do not result from a real difference in productive efficiency, but from a competitive distortion that, via above-cost termination prices associated to the referred tariff differentiation, twists traffic patterns of retail calls, increasing the number of on-net calls and reducing the number of off-net calls.

In a perspective of static efficiency, the application of a “pure” LRIC value, that does not include any common costs, implies a lower distortion of the structure of prices of voice calls, and consequently prices of these calls (off-net calls) are intended to gradually reflect real inherent marginal costs. In this scenario, marginal choices of consumers and respective traffic patterns will not be subject to distortions as significant as those which would result where common costs were taken into account for the purpose of the setting of the wholesale termination price. Moreover, as referred earlier, these costs may be recovered by other means.

In terms of dynamic efficiency, given the excessive income that may result from above-cost termination prices, larger operators could also be able to leverage their competitive position in retail markets, creating barriers to entry or expansion therein.

Although the tariff-mediated network effect is not so strong in the fixed sector, in contrast to the mobile sector, taking into account that retail calls originated on MEO were regulated up to August 2014, this in an effect which may nevertheless be felt, and some of the smaller operators may only be able to effectively meet it with termination prices set at the

level of marginal costs of an efficient operator. This price setting would allow a sustained maintenance of flat rate offers that are independent of telephone call destination networks.

ANACOM acknowledges that there are many flat-rate-based offers where at least a part of traffic is free of charge. However, there are also offers where not all calls are free to all fixed networks, or are not undifferentiated according to the destination network. As such, there is a margin for change resulting from the reduction of termination prices, bearing in mind that such prices, before provisional decisions adopted in 27.08.2013 and 27.11.2013, were set above costs, and on account of the fact that even tariffs with free calls are obviously not provided completely free of charge and are always associated to a fixed access cost.

Where the termination price is decreased, all the rest remaining constant, there will necessarily be a decrease in the cost of using the referred wholesale service. As such, although this effect does not depend on competitive dynamics that exist on the retail market, the reduction of the termination price may lead to the decrease of off-net call prices, or, where flat rates are in place, to the increase of minutes that integrate the referred offers where they do not integrate unlimited minutes, or the inclusion of more types of calls, or even a reduction of the price of the offer.

In this respect, it must also be referred that even where in many cases no difference exists between on-net and off-net prices, this does not mean that the competitive capacity of smaller providers does not benefit from the reduction of termination prices. In fact, in situations where there were traffic imbalances to the detriment of smaller providers, the setting of lower termination prices immediately helped improve their financial position compared to larger operators. This situation will also contribute to the reinforcement of the competitive capacity of smaller providers.

As such, the setting of termination prices on the basis of the “pure” LRIC model not only is the option which best favours static efficiency, but it is also the most appropriate in a perspective of dynamic efficiency, as it allows the rebalance of the investment capacity between operators of different sizes, contributing to increased competition in the retail market.

In addition to what was referred on the applicability of the costing model based on a “pure” LRIC approach, it must be highlighted, as mentioned earlier, that any deviation from the Recommendation on Termination must be objectively justified to EC itself, on the basis of specific national circumstances, which as far as the national market is concerned, have

not been identified. Without prejudice, the model which implements the methodology concerned must seek to incorporate national specificities and take into account information provided by players operating on the Portuguese market.

In fact, the EC Recommendation, which points to a "pure" LRIC model, aims for the harmonization of methodologies for calculation of termination prices on which the setting in each Member State of the respective wholesale prices are based, thus contributing for the removal of barriers to the internal market. It is stressed that the development of the EU internal market is one of the regulation principles by which all NRA must abide, being enshrined in the national case in ECL (articles 5 and 6 thereof) as one of the regulatory objectives.

ANACOM therefore concludes that the "pure" LRIC costing model is the most appropriate costing opting to determine fixed termination prices in Portugal. Naturally, the development of the model and respective parameters takes into consideration national specificities, and for this purpose information was requested from national operators, without prejudice to efficiency concerns that are incorporated in the model, according to the EC Recommendation. In this context, it should be added that most European Regulatory Authorities (24 out of 28) have already notified EC of price control obligations imposed on these markets, and have defined pure-"LRIC"-based prices.

Among those that do not apply the Recommendation on Termination, the situation of the Netherlands stands out. The Regulatory Authority of the Netherlands[79] sent a first notification of prices based on the "pure" LRIC approach, in 2012, but a decision of the Dutch Court led prices that were set to be those that were obtained on the basis of the LRIC "+" costing model.

In 2013, the Dutch Regulatory Authority[80], after a national consultation, again notified EC of "pure" LRIC prices, however, the Dutch Court again annulled that decision[81].

In this context, attention must also be drawn to notifications from the German Regulatory Authority and letters in which EC raises serious concerns, under article 7A of the Framework Directive, as regards notified draft decisions, which have been supported by

[79] Available at https://circabc.europa.eu/d/d/workspace/SpacesStore/a40a78f9-cb11-4725-8ea9-afcadab7600f/NL-2012-1284-1285%20Acte%281%29_EN%2Bdate%2Bnr.pdf

[80] Available at https://circabc.europa.eu/sd/a/beb1d5ab-bcc8-4128-9837-dfc7db68bd00/NL-2013-1481%20Adopted_EN.pdf

[81] Available at http://www.rechtspraak.nl/Organisatie/CBb/Nieuws/Pages/Afgiftetarieven%20telefoonmarkt.aspx

BEREC, as well as subsequent recommendations of EC, due to the German Authority's failure to adopt termination prices on the basis of a "pure" LRIC costing model, and the choice for a LRIC "+" approach.

5.3.4.4. Symmetry of termination prices

If, on the one hand, the maintenance of the obligation for all operators continues to be justified for the reasons set out above, it must be weighted whether there are grounds for price differentiation between OSP and MEO. In this respect, it is noted that this price differentiation, on account of the grounds that justified it, was necessarily a temporary measure that aimed at creating the appropriate cost-efficiency conditions enabling a future evolution towards the goal of achieving symmetry in the application of termination prices.

Operators that currently exist on the fixed market for voice call termination have been active, in general, for several years now, and as such there is no reason why a price differentiation should be maintained.

The decision on asymmetry adopted in 2004 and specified in 2005 had a special framework, as at the time new providers of retail telephone services provided at a fixed location were intended to be supported, in a market where full liberalization of the retail fixed market had begun a few years before, and where the share of the incumbent, the then PTC, was still substantially high, and thus the amount of traffic generally terminated on OSP was very low.

In parallel, termination prices of companies of the group were set at values which exceeded values equivalent to avoidable costs of an efficient operator.

Moreover, OSP emerging at the time necessarily had lower economies of scale than companies of the then Grupo PT.

Today's situation is different from the market situation in 2004/2005. 15 years have passed since the full liberalization of the fixed communications market, during which time several operators have emerged and many merger and separation movements have taken place. Most providers that currently provide termination services have been active on the market for several years.

Moreover, these providers have had the opportunity to develop their own networks, as a rule without being subject to coverage requirements that force them to be present

throughout the territory, being able to focus on regions expected to be more profitable and thus to achieve an efficient scale more quickly.

In the light of the above, ANACOM considers that there are no grounds for an asymmetry of termination prices charged by OSP, and it is highlighted that the setting of a termination price at a level equivalent to an avoidable cost of the provision of the service by an efficient operator, as explained earlier, will bring about the strengthening of competition conditions, create conditions that enable OSP to deal with tariff-mediated network effects and to maintain in a sustained manner innovative products and flat-rate-based tariff structures.

In fact, in the scope of the adoption of provisional and urgent measures on 27.08.2013, amended by new provisional and urgent measures approved on 27.11.2013, these asymmetries had already been removed.

As regards the existence of asymmetric termination prices, EC's position laid down in the Recommendation on Termination must be stressed. EC believes that any deviation in the calculation of costs of an efficient operator must be justified by objective cost differences that are outside the control of the operator. These cost differences will only exist in the case of mobile termination, due to imbalances resulting from spectrum allocation, and applies only for up to four years after the entry into the market of the operator benefiting from this asymmetry.

As such, on the issue of the maintenance of price asymmetry, EC refers, although only as far as termination on mobile networks is concerned, as follows[82]:

"*New entrants in mobile markets may also be subject to higher unit costs for a transitional period before having reached the minimum efficient scale. In such situations, NRAs may allow them, after having determined that there are impediments on the retail market to market entry and expansion, to recoup their higher incremental costs compared to those of a modelled operator for a transitional period of up to four years after market entry*."

However, in the same paragraph, and specifically as regards termination on the fixed network, EC clarifies that:

"*This is distinct to the situation for new entrants in fixed markets which have the opportunity to achieve low unit costs by focusing their networks on high-density routes in*

[82] Cf. §17 of the referred EC Recommendation.

particular geographic areas and/or by renting relevant network inputs from the incumbents."

On the other hand, the Explanatory Notes to the Recommendation on Termination explains that maintaining asymmetric prices fosters market entry of operators with inefficient practises and which for this reason will not remain in the market in the long term. The same document refers that it is widely acknowledged that, compared to an equivalent situation where symmetric wholesale prices were set, the application of asymmetric prices would result in higher retail prices borne by the final consumer.

The Commission staff working document accompanying the Recommendation on Termination[83] must also be taken account of, and in the scope of symmetric prices and their relation to the level of termination prices, EC refers as follows:

"Symmetry at the level of truly cost-oriented (efficient) termination rates would reduce the payments of smaller market players, while rendering them capable of offering tariff packages and price plans with off-net prices comparable to that of the on-net charges of larger operators. This would in turn increase their ability to compete and thus encourage competition in the retail mobile markets to the ultimate benefit of consumers."

Lastly, it should be noted that EC has expressed its disapproval of Regulatory Authorities that have maintained asymmetric termination prices in their notifications. This is the case of comments made further to notifications on fixed termination prices set by Regulatory Authorities of Hungary[84], Italy[85], Poland[86] and Romania[87].

In the light of the above, it is confirmed that symmetric termination prices remain applicable to all operators, in compliance with the analysis made in the scope of provisional and urgent measures of 27.08.2013 and 27.11.2013.

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[83] Commission Staff Working Document accompanying the Commission Recommendation on the Regulatory Treatment of Fixed and Mobile Termination Rates in the EU Implications for Industry, Competition and Consumers, available at http://ec.europa.eu/governance/impact/ia_carried_out/docs/ia_2009/sec_2009_0599_en.pdf .

[84] Case HU/2011/1224, available at https://circabc.europa.eu/sd/d/0ee295b1-049f-454f-abd9-da7bd75e77a3/HU-2011-1223-1224%20Acte(3)_EN+date%20et%20nr.pdf

[85] Case IT/2011/1196, where Italy proposed to maintain asymmetry up to 31.12.2012, available at https://circabc.europa.eu/sd/a/c0b9d30a-4126-4bc5-ab5f-e6b0ac4e998e/IT-2011-1196%20Acte%282%29_EN+date+nr%20CORR.pdf

[86] Case PL/2011/1222, available at https://circabc.europa.eu/sd/d/ea44348b-d06b-4d90-9001-626031988a45/PL-2011-1222%20Acte_EN+date+nr.pdf

[87] Case RO/2011/1271, available at https://circabc.europa.eu/d/d/workspace/SpacesStore/0a8586bd-aab2-4464-9386-ccd63eaf14cc/RO-2011-1271%20Acte_EN%2Bdate%2Bnr.pdf

Accordingly, termination prices charged by OSP must be set on the basis of the costing model, that is, prices set at the level of efficient costs based on the application of a BU model, using the "pure" LRIC costing methodology.

5.3.4.5. Prices to be charged

ANACOM has concluded the definition of the costing model for the determination of termination prices.

Termination prices defined in the basis of results of the costing model must take effect after the approval of the decision on that model.

It is noted that, in the absence of results produced by the referred model, the Recommendation of Termination refers as follows:

"*In exceptional circumstances where an NRA is not in a position, in particular due to limited resources, to finalise the recommended cost model in a timely manner and where it is able to demonstrate that a methodology other than a bottom-up LRIC model based on current costs results in outcomes consistent with this Recommendation and generates efficient outcomes consistent with those in a competitive market, it could consider setting interim prices based on an alternative approach until 1 July 2014. Where it would be objectively disproportionate for those NRAs with limited resources to apply the recommended cost methodology after this date, such NRAs may continue to apply an alternative methodology up to the date for review of this Recommendation, unless the body established for cooperation among NRAs and the Commission, including its related working groups, provides sufficient practical support and guidance to overcome this limitation of resources and, in particular, the cost of implementing the recommended methodology. Any such outcome resulting from alternative methodologies should not exceed the average of the termination rates set by NRAs implementing the recommended cost methodology*".

In order to meet the Recommendation on Termination, ANACOM determined that, as from October 2013, termination prices to be charged by the various providers of fixed telephone services and by providers of the VoIP service with significant market power were set on the basis of a benchmark, by reference to the average of prices already calculated by other Regulatory Authorities of the European Union that used the "pure" LRIC costing methodology.

In this scope, it is recalled that EC, in its letter of 12.08.2013, urged ANACOM to adopt provisional measures as soon as possible with a view to setting termination prices based on a benchmark of "pure" LRIC prices:

"*As a result of Commission's decision to open a Phase II investigation on ANACOM's notification, ANACOM will not be allowed to adopt the proposed measure for a minimum of an additional three months. This would result in an even further delay of the adoption of the proposed prices, which represent already benchmarks of "pure" LRIC prices in other Member States. In order to avoid any further delay, the Commission requests ANACOM to introduce cost-oriented termination prices based on benchmarking as soon as practically possible, and, in any event, not later than 1 October 2013, by way of provisional measures, as set out in Article 7 (9) of the Framework Directive.*

Such provisional FTRs, which mimic cost oriented prices, should therefore be imposed without delay, until the BU-LRIC cost model currently being developed is ripe for implementation. Indeed, the Commission believes that there is an urgent need to act to protect the interests of consumers, in order to finally put an end to the latter's' inability to take advantage of cost-oriented termination prices."

Accordingly, ANACOM approved provisional and urgent measures laid down in the document "*Wholesale market for call termination on the public telephone network at a fixed location - Definition of product markets and geographic markets, assessment of SMP and imposition, maintenance or suppression of regulatory obligations*", which includes the determination of new termination prices that took effect on 1 October 2013, set by reference to a benchmark of "pure" LRIC prices notified to EC.

Subsequently, after having found that the implementation of the price control obligation by some operators with SMP in wholesale markets for call termination at a fixed location was compromising objectives underlying their determination, namely the need to remove the asymmetry of prices among the various operators with SMP in markets concerned, ANACOM approved on 27.11.2013 new provisional and urgent measures relating to the implementation of the price control obligation.

The "pure" LRIC price used as reference in the setting of prices to be charged in Portugal for voice call termination on geographic numbering or non-geographic numbering allocated to nomadic VoIP was thus set at 0.1114 Euro cents per minute.

ANACOM believes that the decision to set prices for wholesale fixed voice call termination at a "pure" LRIC level, which were already in force since 1.10.2013 as far as TDM

interconnection is concerned, is justified, notwithstanding the impact on the reduction of operator revenues, on the following grounds:

- The market has long known that a Recommendation (Recommendation on Termination) exists, which must be taken into the utmost account, and any departure from its provisions must be notified to EC and duly justified; the Recommendation establishes that NRA are required to guarantee that, as from 31.12.2012, termination prices are set at the level of "pure" LRIC costs, and to provide also for the setting of symmetrical prices; it is noted that from the analysis conducted ANACOM has found no grounds that justify the departure from this Recommendation.

- Moreover, in the scope of the decision on the conditions of the reference interconnection offer in force in 2010, notified to EC in April 2010, this body presented several comments, stressing in particular that call termination prices should be set on the basis of LRIC costs, and urged ANACOM, in its subsequent analysis of the wholesale market for call termination on the fixed network, to bring its cost accounting methodology into line with cost accounting principles laid down in the Recommendation on Termination, as well as to ensure that termination prices for alternative operators were set at an efficient (symmetric) level as soon as possible.

  It is noted that in its response to EC, ANACOM specified that it would develop the bottom-up model so as to enable its entry into force by the deadline of 31.12.2012, as provided for in Recommendation 2009/396/EC.

  In this respect, it must be highlighted that EC, on 12.08.2013, required ANACOM to set termination prices based on benchmarking "*as soon as practically possible, and, in any event, not later than 1 October 2013*".

- Operators with SMP in these markets have had a long period of time to adjust to the decrease of termination prices, not having changed prices for eight years, in the case of OSP, and since 2010, in the case of companies of ex-Grupo PT. As such, in the course of that period, they were able to charge prices substantially above those which result from the application of the Recommendation on Termination.

- As prices must now be set on the basis of a reference of "pure" LRIC costs, given that this leads to a significant decrease of termination prices, with positive effects

as far as the productive and allocative efficiency are concerned, and better competitive conditions, in particular for smaller operators, are provided for, it was relevant that the market was able to benefit quickly from these effects.

- The impact of the reduction of termination prices, which entails the decrease of revenues of operators that provide the fixed telephone service would in several cases be mitigated, and even compensated as far as some operators are concerned, by the decrease of termination costs paid to third party operators; it is noted, in addition, that where operators also have a mobile operation, savings with the reduction of costs paid by these operators with call termination on fixed networks must also be taken into consideration.

Therefore, as grounds on which ANACOM based its approval of provisional and urgent measures on these markets, on 27.08.2013 and 27.11.2013, still remain, in particular as regards the setting of termination prices, and as provided for in those decisions, this Authority determines that termination prices are set at a maximum value that corresponds to the value resulting from the "pure" LRIC costing model for 2016[88] (on the basis of 2012 prices, updated to stay in line with existing and foreseen inflation data), that is, 0.0644 Euro cents per minute, tariff with a per second billing from the first second.

As there are operators, such as MEO, that present hierarchical interconnection structures, with interconnection levels corresponding to local interconnection, simple transit and double transit, it is necessary to define specific prices to be charged in the referred interconnection levels, as well as prices to be charged by operators with simpler network architectures, namely with a single termination price[89].

[88] According to the costing model developed by ANACOM on the basis of the "pure" LRIC option, the cost of the wholesale fixed termination service, established in line with the EC Recommendation, is expected to amount, in 2016, to around 0.0633 Euro cents per minute (on the basis of 2012 prices) or 0.0644 Euro cents per minute considering an inflation close to 0.27% in 2013, -0.28% in 2014, 0.49% in 2015 and a foreseen 1.2% inflation in 2016. This last value corresponds to the one entered in the State Budget for 2016, available at http://app.parlamento.pt/webutils/docs/doc.pdf?path=6148523063446f764c3246795a5868774d546f334e7a67774c336470626d6c7561574e7059585270646d467a4c31684a53556b76644756346447397a4c334277624445794c56684a53556c664d6a49755a47396a&fich=ppl12-XIII_22.doc&Inline=true on 20 April 2016.

[89] It is recalled, in this respect, that MEO charges in its fixed network, as from 01.10.2013, 0.1026 Euro cents, at local interconnection level, 0.1411 Euro cents at simple transit interconnection level, and 0.1642 Euro cents, at double transit interconnection level, with an average interconnection price of 0.1114 Euro cents, which corresponds to the price that results from the benchmark of "pure" LRIC prices.

As far as other operators with SMP are concerned, ANACOM determined that maximum prices to be charged for fixed call termination were as follows:

Values to be set, which will always correspond to a price cap, are determined in a moment of transition where traditional networks are evolving to IP networks, and as a consequence, at interconnection level, the hierarchical structure presented by MEO must undergo a change, as a first step, so as to reduce the number of interconnection points and simplify that same structure.

So far, in order to benefit from local level prices, operators that interconnect with MEO must do so in around 140[90] interconnection points, with the transmission and interconnection costs that are necessarily associated. Smaller operators either use transit services to interconnect at local level points, or interconnect directly at simple transit or double transit interconnection points, paying in any case a higher interconnection price. This price structure that corresponds to a hierarchical network architecture is in close connection to a TDM network which will be subject to a significant change when it evolves to an all-IP network, where interconnection will take place in a different way, the various levels of interconnection ceasing to be relevant.

In the light of the above, obligations imposed must also evolve, adjusting to the period of transition to a new reality. In this context, measures must be adopted so as to allow MEO, which still presents a hierarchical network structure, to start to restructure its network -

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a. Where the operator chooses to provide a tariff structure with several levels of interconnection prices:
   - It is required to make available the local interconnection price level, so that it is possible to deliver at this level the termination traffic intended to all customers of the operator;
   - Where the double transit interconnection price level is made available, the provision of the simple transit interconnection price level is always required.
   - Where the interconnection traffic is carried through a single switch before it is delivered to the customer receiving the call, the termination price to be charged may not exceed the maximum price set for MEO in the local interconnection level.
   - Where the interconnection traffic is carried through two switches, that are available for interconnection with third party operators, before it is delivered to the customer receiving the call, the termination price to be charged may not exceed the maximum price set for MEO in the single interconnection level.
   - Where the interconnection traffic is carried through three or more switches, that are available for interconnection with third party operators, before it is delivered to the customer receiving the call, the termination price to be charged may not exceed the maximum price set for MEO in the double interconnection level.

b. Where the operator chooses to provide a simple tariff structure, with a single price level: the termination price to be applied may not exceed 0.1114 Euro cents per minute.

[90] In its response to the DD, MEO reported that this number had decreased, and that at the moment there are 133 GIP. ANACOM clarifies in this respect that the source for the number included in the DD was RIO V2/2015 of 24.11.2015, which shows that there are 141 local GIP, this being the RIO version currently available at PT Wholesale's website (which must reflect the current network's structure). Accordingly, the draft final decision maintained the reference to around 140 GPI. In the meantime, MEO updated its RIO (V3/2016, of 30.11.2016), the number of local GPI having decreased to 127.

without ceasing the provision of TDM interconnection services and without disconnecting interconnection points where other operators are connected. Other operators must also be able to benefit from the possibility of carrying traffic to any of MEO's customers, interconnecting for this purpose in fewer interconnection points (even before IP interconnection is made available), and those which are currently only interconnected at higher levels must be allowed to pay for simple transit interconnection the amount charged for local interconnection, these two levels now matching. In this context, agreements must be reached on prices that apply when operators use third party transit services or MEO's double transit service to carry termination traffic.

In this scope, it is noted that in the market for wholesale transit services, which is not regulated, there are offers which will compete with double transit services provided so far by MEO, and which may also be used to carry traffic to interconnection points defined for reception of termination traffic. It is likely that these transit services also put a certain amount of pressure on prices of double transit services.

On this issue, it is recalled that, having EC been notified of the draft decision on which this decision is based, where ANACOM had opted to determine that the double transit interconnection service should be subject to negotiation, although in the absence of an agreement, and until an IP interconnection that enabled the delivery of all traffic by this means was made available, the price should not exceed the value currently charged, that is, 0.1642 Euro cents per minute, EC issued comments on this determination (*vide* chapter 1.2.4), having urged ANACOM "*to lift in its final measure the safety caps imposed on tariffs for termination at national level*".

Subsequently to EC's communication, MEO, by letter sent to ANACOM on 14 December 2016, refers that it took note of comments by EC, and on the specific issue on double transit, it is considers that the removal of the price cap provided for in the draft decision is justified, referring also that it considers that the price regulation, which prohibits prices from exceeding the current level, would be "*unnecessary and without any practical effect*", given that "*not only MEO's incentive for a hypothetical price increase is constrained by the residual weight of DT (and the consequent low variation of the revenue of the call termination service), but also, most importantly, <u>the dynamics of the interconnection market does not allow MEO to increase the DT price</u>*." MEO adds that "*although wholesale transit services integrate a different interconnection market, which is not regulated, they are still able to exert competitive pressure on MEO's DT service. In this competitive market, there are several operators that provide offers competing with MEO's TD service,*

as they can be used to carry traffic for delivery in interconnection points defined for reception of termination traffic. These transit services constrain the price of the DT service, given that a hypothetical price increase of the latter would lead to the reduction of the respective demand via substitution by the former, with a final negative effect for MEO".

In the light of the analysis above on the use of double transit services, and taking into consideration comments and respective grounds made by EC, which urges ANACOM to "*lift in its final measure the safety caps imposed on tariffs for termination at national level*", as well as MEO's reaction to the referred comments, it is deemed that ANACOM's concerns on this subject have been duly addressed, and that the double transit interconnection price may be subject to negotiation between operators, the imposition of a price cap not being required.

As such, in the provision of call termination service, MEO is required to:

- Maintain the interconnection structure that currently exists, without disconnecting interconnection points where other operators are connected, without prejudice to amendments that may be introduced in the framework of the Reference Interconnection Offer, according to deadlines set out therein, namely those referred in point 5.3.3;
- Accept, at the request of interested parties , and within 3 months at the most, the reduction in the number of interconnection points with which an alternative operator must be interconnected to deliver termination traffic to all of MEO's customers, at an interconnection price equivalent to local level rates, which must take place via migration of interconnection in local GIP to the respective regional GIP (simple transit), ensuring that the total number of interconnection points required to cover all of MEO's customers does not exceed 60 GIP (this obligation does not require that alternative operators cease to be interconnected in any of the local level GIP);

  Without prejudice to the obligation imposed and the defined deadline, it is clarified that in the scope of referred migrations, in the case of requests of alternative operators focusing on GIP that may not be disconnected for verifiable technical constrains, MEO must present alternatives to these operators that allow the achievement of the target of decreasing the number of GIP by up to 60;

  It is noted that, outside the scope of referred negotiations, migration to higher hierarchical levels must take place fundamentally in the scope of interconnection

to IP, without prejudice, where capacity is available and the observance of the non-discrimination obligation being ensured, to the granting of requests for migration of TDM interconnection from lower to higher hierarchical levels;

- Charge the same termination price in local level and simple transit level GIP ("pure" LRIC prices), set on the basis of results of the "pure" LRIC costing model for 2016, by reference to 2012 prices updated to stay in line with (existing and foreseen) inflation data, that is, 0.0644 Euro cents per minute[91], tariff with a per second billing from the first second, as explained in the report of the public consultation and prior hearing procedures on the DD concerning the fixed termination costing model, approved on 10.07.2014;
- Charge a "pure" LRIC price to call termination on the 30 numbering range, which is set at a maximum value of 0.0644 Euro cents per minute, tariff with a per second billing from the first second, in conformity with the preceding point;

As regards the interconnection price that applies to double transit, it must be negotiated between MEO and operators that rely on it to deliver part or all the respective traffic.

Alternative operators, in the provision of the call termination service, are bound to obligations equivalent to those imposed on MEO (in terms of prices), where the respective networks present a hierarchical structure or where they charge differentiated prices according to the interconnection level, under the conditions established by ANACOM in its decision of 27.11.2013. However, ANACOM is not aware at the moment of any alternative operator currently operating with a network structure of this type, or charging differentiated prices. In fact, all active operators charge a single price for call termination on the respective networks, which has corresponded to the maximum value charged by ANACOM in 2013, that is, 0.1114 Euro cents per minute, tariff with a per second billing from the first second.

[91] According to costing model developed by ANACOM on the basis of the "pure" LRIC option, the cost of the wholesale fixed termination service, established in line with EC Recommendation, is expected to amount, in 2016, to around 0.0633 Euro cents per minute (on the basis of 2012 prices) or 0.0644 Euro cents per minute considering an inflation close to 0.27% in 2013, -0.28% in 2014, 0.49% in 2015 and a foreseen 1.2% inflation in 2016. This last value corresponds to the one entered in the State Budget for 2016, available at http://app.parlamento.pt/webutils/docs/doc.pdf?path=6148523063446f764c3246795a5868774d546f334e7a67774c336470626d6c7561574e7059585270646d467a4c31684a53556b76644756346447397a4c334277624445794c56684a53556c664d6a49755a47396a&fich=ppl12-XIII_22.doc&Inline=true on 20 April 2016.

Therefore, in compliance with amendments determined on MEO, other operators must also charge a maximum termination price of 0.0644 Euro cents per minute, tariff with a per second billing from the first second.

Fixed call termination prices referred to in the preceding paragraph must take effect 10 working days after approval of final decisions on these markets and on the costing model.

It is noted that, as regards the price of 0.1114 Euro cents, the new maximum price for call termination on public telephone networks at a fixed location, set at 0.0644 Euro cents, represents a reduction by 0.047 Euro cents per each termination minute.

ANACOM further determines that, in 2017, this price will be updated on the basis of results of the "pure" LRIC costing model for that year (by reference to 2012 prices, updated to stay in line with existing and foreseen inflation data), as referred in the decision of the fixed termination costing model, the maximum value that results from this calculation taking effect on 1 October 2017.

In order to make above-mentioned price update operational, ANACOM shall notify operators with SMP in these markets of the resulting update for 2017, by the end of the 1st half of the year concerned, making this information available also at its website.

5.3.4.6. Termination of calls originated outside the EEA

Without prejudice to the need for the application of "pure" LRIC prices, it is acknowledged that in a context where national providers are required to establish commercial relations with providers who exercise their activity in a non-regulated environment or subject to less demanding measures, the imposition of these prices may reduce some of their business capacity, ultimately creating more distortion, instead of addressing it.

It is noted that, according to the Framework Directive, NRA are required to contribute to the development of the internal market, namely to the elimination of obstacles that still exist in the offer of electronic communications networks and services at European level. Regulatory measures approved by NRA must thus support the development of the internal market, avoiding an unequal treatment of companies that are in similar conditions.

In this case, the development of the internal market, or companies subject to conditions equivalent to European companies, are not at stake. In fact, it is stressed that in the specific case of fixed termination, the absence of harmonization of methodologies adopted for the setting of prices charged by operators outside the EEA, which for the most part are

not subject to *ex ante* regulatory obligations, including price obligations, such as cost-orientation, namely resulting from the Recommendation on Termination, nor to any type of reciprocity, places operators concerned under very different circumstances than those to which operators active in the EEA are subject.

In fact, Community providers may be required to pay providers from countries outside EEA termination prices that are significantly higher than those in force in the EEA, which aggravated by possible traffic asymmetries between Community and extra-Community operators, further penalizes operators active in the EEA.

Without prejudice to competition distortions identified in wholesale markets of call termination at a fixed location, concerning the refusal (or delays) to negotiate and/or provide access, as well as the setting of excessive prices, the impact of these distortions is particularly relevant, as it could affect downstream retail markets, where the operator seeks to strengthen its position by leveraging its wholesale market power. In the specific case of the termination of calls made outside the EEA, the same retail markets are not concerned, given that national and extra-Community operators operate in different markets, thus they do not compete directly in downstream markets.

Moreover, any asymmetry of prices would ultimately be to the detriment of consumers of EEA countries, given that retail prices would reflect the increased value of wholesale termination prices that national providers would have to bear to terminate calls in countries outside EEA, contrary to consumers of those countries, who would benefit from the fact that their providers paid “pure” LRIC termination prices.

It is noted, in this scope, that international traffic to countries outside EEA has some weight, one of the operators indicating that this corresponds to more than 20% of the total international traffic, and termination prices paid by national operators to operators of countries outside EEA are many times higher to termination prices charged by operators active in Portugal. In addition, at least as one of the main market operators is concerned, traffic is unbalanced to the detriment of the national operator (traffic terminated on countries outside EEA is much higher that traffic terminated on the national operator).

Lastly, it must be highlighted that at Community level this practise is already applied, both at the level of fixed termination markets[92] and of mobile termination markets, being

[92] EC acknowledged, in its letter of comments to the Czech Republic on the notification of its market for fixed termination and on the decision to exclude calls terminated on its country but originated outside the EEA, that the Recommendation on Termination applies, in principle, only to wholesale fixed termination services

stressed, in this regards, the most recent notifications from the French, Croatian and Hungarian Regulatory Authorities, that for similar reasons to those pointed out by ANACOM, also decided the apply in a different fashion the price control obligation according to whether calls are originated within the EEA, these decisions not having been opposed by EC.

As such, and as ANACOM believes that regulation objectives associated to the promotion of competition, consumer protection and strengthening of the internal market are not affected where termination of traffic originated outside the EEA is not subject to price control, it is deemed reasonable to give operators the possibility of setting prices that guarantee greater tariff equivalence.

As such, ANACOM believes that the price control obligation must not cover calls originated by operators outside the EEA.

In this context, ANACOM considers that nothing prevents the provider of the call termination service from requiring providers that purchase that service to identify in some way the origin of the call or the caller of voice calls that are delivered to it, for example through the caller ID (calling party number in the case of SS7) or through any other means, namely any of those identified in ITU Recommendation on International calling party number delivery, non-identified traffic being subject not to benefit from a regulated price.

5.3.4.7. Conclusion

ANACOM determines that all providers with SMP on these markets are subject to a price control obligation based on the principle of cost orientation of prices. As regards the costing model to be applied in the scope of the determination of termination prices, the BU model is applied, using the “pure” LRIC costing model oriented towards costs of an efficient operator.

As provided for in the EC Recommendation on Termination, ANACOM developed a costing model for fixed termination, which was submitted to a public consultation and prior hearing of stakeholders, further to the approval of the respective DD, on 10.07.2014.

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concerning calls originated in countries of the EEA (available at: https://circabc.europa.eu/sd/a/63a12efc-b25e-4569-85eb-24ed4adc3ebc/CZ-2014-1581%20ADOPTED_EN.pdf)

On the basis of results of the referred model, and as described in the report of the public consultation and prior hearing procedures on the DD on the fixed termination costing model, ANACOM determines that the maximum price for call termination on public telephone network at a fixed location is set on the basis of results of the "pure" LRIC costing model for 2016 an 2017, by reference to 2012 prices, updated to stay in line with (existing and foreseen) inflation data.

As such, a maximum price of 0.0644 Euro cents per minute[93] is set for 2016, which shall take effect ten working days after approval of the final decision on this issue, being determined for 2017, to take effect as from 1 October of that year, the value that results from the referred costing model updated by reference to inflation data.

The established maximum termination price must be applied indiscriminately to local and simple transit interconnection levels, even where operators present a hierarchical interconnection architecture.

In order to make above-mentioned price update operational, ANACOM shall notify operators with SMP in these markets of the resulting update for 2017, by the end of the 1st half of the year concerned, making this information available also at its website.

Moreover, MEO is required to accept, at the request of interested parties , and within 3 months at the most, the reduction in the number of interconnection points with which an alternative operator must be interconnected to deliver termination traffic to all of MEO's customers, at an interconnection price equivalent to local level rates, which must take place via migration of interconnection in local GIP to the respective regional GIP (simple transit), ensuring that the total number of interconnection points required to cover all of MEO's customers does not exceed 60 GIP (this obligation does not require that alternative operators cease to be interconnected in any of the local level GIP).

Without prejudice to the obligation imposed and the defined deadline, it is clarified that in the scope of referred migrations, in the case of requests of alternative operators focusing on GIP that may not be disconnected for verifiable technical constrains, MEO must

[93] According to costing model developed by ANACOM on the basis of the "pure" LRIC option, the cost of the wholesale fixed termination service, established in line with the EC Recommendation, is expected to amount, in 2016, to around 0.0633 Euro cents per minute (on the basis of 2012 prices) or 0.0644 Euro cents per minute considering an inflation close to 0.27% in 2013, -0.28% in 2014, 0.49% in 2015 and a foreseen 1.2% inflation in 2016. This last value corresponds to the one entered in the State Budget for 2016, available at http://app.parlamento.pt/webutils/docs/doc.pdf?path=6148523063446f764c3246795a5868774d546f334e7a67774c336470626d6c7561574e7059585270646d467a4c31684a53556b76644756346447397a4c334277624445794c56684a53556c664d6a49755a47396a&fich=ppl12-XIII_22.doc&Inline=true on 20 April 2016.

present alternatives to these operators that allow the achievement of the target of decreasing the number of GIP by up to 60.

The double transit interconnection price is subject to negotiation.

The price control obligation does not cover calls originated by operators outside the EEA.

In the light of the above, as regards compliance with conditions set out in article 55 of ECL, it is deemed that the price control obligation that relies on the development of the "pure" LRIC model appropriately addresses the identified problem and is justifiable, given the need to meet incentives of operators with SMP to charge above-cost termination prices, as well as the need to promote greater competition, providing increased conditions for all operators to launch innovative products, with flat-rate-based tariffs structures, with benefits for customers in general.

This is a proportional obligation, as it is necessary to meet objectives for which it was defined and it is applied to all operators which could put at risk compliance with these objectives. In this scope, its application to alternative providers is proportional, as these providers have already benefited for some years of an asymmetry which is not longer justified (and which, in fact, is not in force since October 2013) and which is contrary to the Recommendation on Termination, no reasons existing at this point in time for a deviation from the Recommendation.

It is also an obligation which does not originate any undue discrimination with regard to any entity, given that it is deemed essential that all operators with SMP are bound to meet it, in the light of its positive impact on competition and its contribution towards the increase of social welfare; it is also transparent in relation to its intended purposes.

5.3.5. Accounting separation (article 71 of ECL) and cost accounting (article 74 of ECL)

The obligation for accounting separation was imposed in the scope of the former market analysis primarily to complement the obligations of non-discrimination and transparency and given that it was also important in terms of the implementation of the cost accounting system. On its turn, the cost accounting obligation was imposed, associated to the price control obligation, so as to guarantee the demonstration of costs associated to the provision of the service.

It is noted that referred obligations were imposed in a context where wholesale termination prices were regulated on the basis of the principle of cost-orientation of prices.

In this DD, ANACOM determines that the costing model that addresses the setting of the termination price is the “pure” LRIC model, which allows the setting of prices at the level of the long-run incremental costs of an efficient operator.

In a context where the determination of termination prices is based on a costing model developed by the Regulatory Authority, and where MEO’s costing system is not based on the same methodology, the accounting separation and cost accounting obligations lose their relevance. Without prejudice to the usefulness of data on MEO’s fixed network for the purpose of possible updates of the current “pure” LRIC model or of its calibration, it is deemed that the importance these obligations had in the past for the fixed termination market has currently decreased.

On the other hand, it is stressed that MEO is required to ensure the existence of a cost accounting system to fulfil the accounting separation obligation imposed in the scope of other markets.

ANACOM also safeguards the possibility of all providers in the market being requested to provide cost information, as well as other information deemed to be necessary, in the context of future updates of the cost model or of specific and duly justified investigation procedures. Providers thus maintain the obligation to respond to these information requests, to the extent of elements that are available to them.

In the light of the above, it is deemed that the maintenance of the imposition on MEO of the obligations for accounting separation and cost accounting in the scope of the market under consideration is not justified and would represent a disproportionate burden in the current context.

Having been analysed the relevance of imposing the obligations for accounting separation and cost accounting on operators other than MEO, ANACOM takes the view that, a fortiori, there are no reasons to impose the referred obligations on these operators. The Authority thus considers that, in this case also, it would not be justifiable to impose these measures. In any case, in the scope of future updates of the fixed termination costing model, providers with SMP in the market could be requested to provide costing information, thus being required to provide the information requested, to the extent that it is available.

Conclusion

ANACOM does not consider it either justifiable or proportional to apply the accounting separation and cost accounting obligations on operators that operate on the market for call termination on individual public telephone networks at a fixed location, obligations that in this scope were imposed on MEO thus being withdrawn. Notwithstanding, it is safeguarded that, in the context of future updates of the "pure" LRIC costing model, costing information, as well as other information deemed to be necessary, may be requested from all providers operating on the market.

5.4. Conclusion

In the light of the above and of conclusions drawn from the analysis of obligations in force in the wholesale termination market, ANACOM sets out the table below, which summarizes obligations to be imposed on MEO in the market under consideration over the period covered by this analysis.

Table 8 – Obligations imposed on MEO, as operator with SMP in the wholesale market for call termination on the public telephone network provided at a fixed location

Obligation to meet reasonable requests for access	Obligation for non-discrimination in the offer of access and interconnection and respective provision of information	Obligation for transparency in the publication of information, including reference proposals	Obligation for price control
▪ To meet reasonable requests for access and to provide network access under fair and reasonable conditions (TDM interconnection and IP interconnection) (the provision of IP interconnection must not result in the withdrawal of access to TDM interconnection, where the latter has already been agreed on) ▪ To substantiate any refusal for access on grounds of alleged unreasonableness within 10 days ▪ To integrate in its reference offer relevant aspects on IP interconnection architecture, presenting for this purpose a proposal on IP interconnection architecture within four months from the publication of the final decision on this analysis	▪ Not to discriminate as regards QoS and supply and repair times ▪ Not to discriminate as regards pricing ▪ Obligation not applicable to termination of calls originated outside the EEA	▪ To communicate in advance (6 months) any changes that affect interconnection ▪ To communicate in advance (2 months) other changes with impact on other operators ▪ To publish information on network settings, GIP and tariff structure ▪ To publish a RIO ▪ To publish prices, terms and conditions, technical information and information on quality of service (the obligation for publication of prices does not apply to termination of calls originated outside the EEA)	▪ To set prices oriented towards costs of an efficient operator (on the basis of results of the "pure" LRIC costing model) ▪ Interconnection prices and conditions set in compliance with point 5.3.4.5. ▪ Obligation not applicable to termination of calls originated outside the EEA

As regards other operators with SMP in the market for call termination on individual public telephone network at a fixed location, ANACOM deems it appropriate to impose on OSP obligations summarized in Table 9.

Table 9 – Obligations imposed on other operators with SMP in the market for call termination on individual public telephone networks provided at a fixed location

Obligation to meet reasonable requests for access	Obligation for non-discrimination in the offer of access and interconnection and respective provision of information	Obligation for transparency in the publication of information, including reference proposals	Obligation for price control

▪ To meet reasonable requests for access and to provide network access under fair and reasonable conditions (TDM interconnection and IP interconnection) (the provision of IP interconnection must not result in the withdrawal of access to TDM interconnection, where the latter has already been agreed on) ▪ To substantiate any refusal for access on grounds of alleged unreasonableness within 10 days	▪ Not to discriminate as regards QoS and supply and repair times ▪ Not to discriminate as regards pricing ▪ Obligation not applicable to termination of calls originated outside the EEA	▪ To publish prices, terms and conditions, technical information and information on quality of service (the obligation for publication of prices does not apply to termination of calls originated outside the EEA) ▪ To communicate in advance (6 months) any changes that affect interconnection ▪ To communicate in advance (2 months) other changes with impact on other operators	▪ To set prices oriented towards costs of an efficient operator (on the basis of results of the "pure" LRIC costing model) ▪ Interconnection prices and conditions set in compliance with point 5.3.4.5. ▪ Obligation not applicable to termination of calls originated outside the EEA

The table below compares obligations imposed in the scope of the Determination of 2004 and those now imposed under the ongoing analysis.

Table 10 – Comparison between the proposal for amendment of obligations and 2004 obligations

OBLIGATION	2004 Decision		Current Decision	
	Gr. PT	OSP	MEO	OSP
To meet reasonable requests for access				
▪ To meet reasonable requests for access and to provide network access under fair and reasonable conditions ▪ TDM interconnection ▪ IP interconnection (the provision of IP interconnection must not result in the withdrawal of access to TDM interconnection, where the latter has already been agreed on)	X	X	X X	X X
▪ To substantiate any refusal for access on grounds of alleged unreasonableness within 10 days			X	X
▪ To integrate in the reference offer relevant aspects on IP interconnection architecture, presenting a proposal on IP interconnection architecture within four months			X	
Obligation for non-discrimination				
▪ Not to discriminate as regards QoS, supply and repair times, and pricing	X		X	X
▪ To provide a capacity-based interconnection offer (CBI)	X			
Transparency in the publication of information, including reference proposals				
▪ To publish a RIO (fixed network)	X		X	
▪ To publish prices, terms and conditions, technical information and information on quality of service (fixed network)	X		X	
▪ To publish information on network settings, GIP and tariff structure			X	X

OBLIGATION	2004 Decision		Current Decision	
	Gr. PT	OSP	MEO	OSP
▪ To communicate in advance (6 months) any changes that affect interconnection	X		X	X
▪ To communicate in advance (2 months) other changes with impact on operators			X	X
Price control				
▪ To set prices on the basis of costs of a forward-looking nature (in a transitory phase, on the basis of variables associated to traffic and expectations as regards the productive and allocative efficiency of the operator)	X			
▪ To set prices oriented towards costs of an efficient operator (on the basis of results of the "pure" LRIC costing model)			X	X
▪ To set the same maximum termination price in local interconnection and simple transit interconnection			X	X
▪ To allow the principle of deferred reciprocity		X		
▪ To set maximum prices for double transit	X	X		
▪ To accept, within 3 months at the most, proposals for the reduction of the number of interconnection points required to cover all of MEO's customers (by up to 60)			X	
Accounting separation and cost accounting				
▪ To develop a costing system and accounting separation	X			

Chart Index

Table Index

Figure Index

Annex I

List of acronyms and abbreviations

CBI	Capacity-Based Interconnection
ECL	Electronic Communications Law
FTS	Fixed Telephone Service
GIP	Geographic Interconnection Point
GSM	Global System for Mobile Communications
IP	Internet Protocol
LRIC	Long Run Incremental Costs
NGN	Next-Generation Networks
OSP	Other Service Providers
OTT	Over the Top
PSTN	Public Switched Telephone Network
RIO	Reference Interconnection Offer
SIP	Session Initiation Protocol
SMP	Significant Market Power
SS7	Signalling System No. 7
TDM	Time Division Multiplexing
UMTS	Universal Mobile Telecommunications System
VoIP	Voice over Internet Protocol

Annex II

List of operators

CABOVISÃO	Cabovisão - Televisão por Cabo, S.A.
GRUPO PT	Grupo Portugal Telecom
Grupo NOS	Includes NOS (NOS – Comunicações, S.A.), NOS Madeira (NOS Madeira Comunicações, S.A.) and NOS Açores (NOS Açores Comunicações, S.A.)
MEO	MEO - Serviços de Comunicações e Multimédia, S.A
NOS	NOS – Comunicações, S.A.
NOWO	NOWO Communications, S.A.
ONITELECOM	OniTelecom – Infocomunicações, S. A.
OPTIMUS	Optimus – Telecomunicações, S. A.
PT PRIME	PT Prime - Soluções Empresariais de Telecomunicações e Sistemas, S. A.
PTC	PT Comunicações, S. A.
VODAFONE	Vodafone Portugal – Comunicações Pessoais, S.A.
ZON OPTIMUS	ZON OPTIMUS SGPS, S.A. and the affiliated firms ZON TV Cabo Portugal, S.A. e Optimus, Comunicações, S.A.
ZON	ZON TV Cabo Portugal, S.A. (ZON)

Annex III

List de other bodies/organizations

AdC	Autoridade de Concorrência (the Competition Authority)
ANACOM	Autoridade Nacional de Comunicações
BEREC	Body of European Regulators for Electronic Communications
CMVM	Comissão do Mercado de Valores Imobiliários (Securities Market Commission)
EC	European Commission
ERG	European Regulators Group
EU	European Union
NRA	National Regulatory Authority