
**Decision on the procedures to be followed in evaluating quality of service of regulated
wholesale offers**

ICP-ANACOM

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1. BACKGROUND

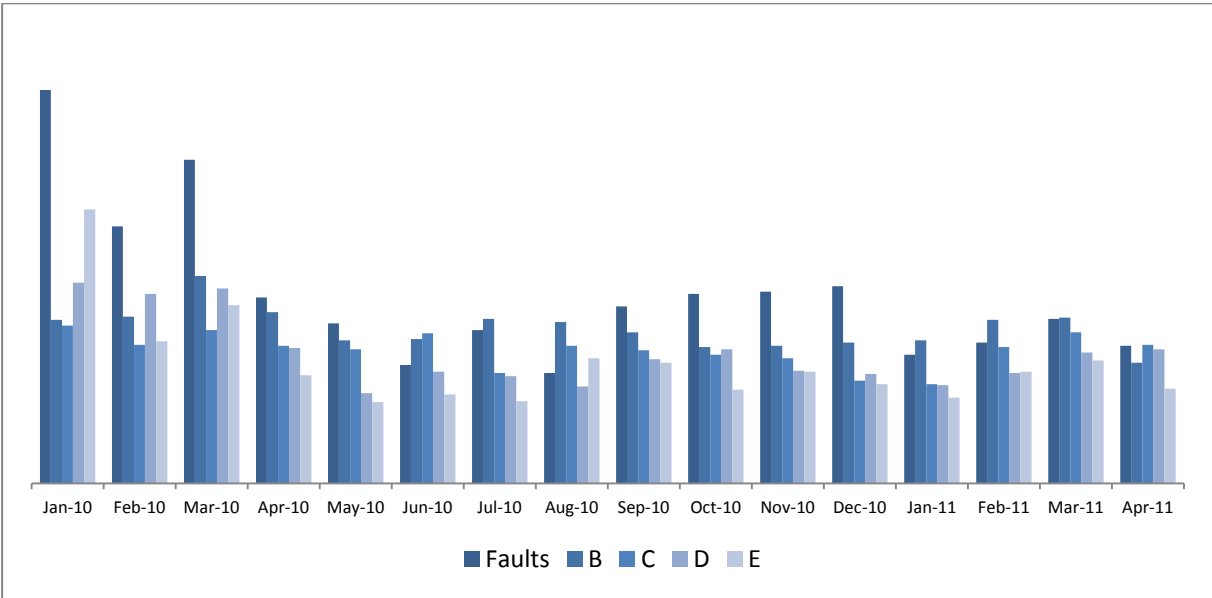
The quality of service provided at the level of the wholesale market is especially important, given the repercussions felt in terms of the service provided to end-users by Grupo PT's competitors.

In fact, both the definition of appropriate levels of quality of service and the correct measurement of these levels is crucial to ensure competitive conditions and to enable provision of services which properly respond to end-user needs.

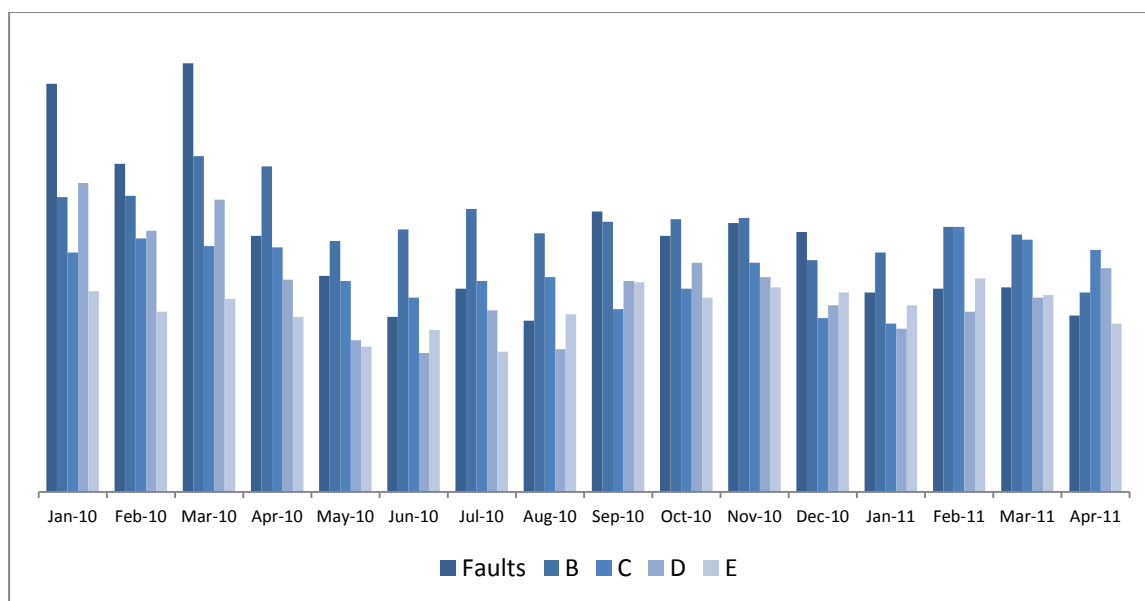
To this purpose, reference offers include quality of service indicators and parameters and establish minimum performance targets for each of these indicators, determining the payment of compensation where these minimum targets are not met.

Since the delayed repair of faults is one of the most significant factors in causing customer dissatisfaction with the electronic communications services which they acquire, the time taken to repair faults is a key indicator of quality of service. Complaints about faults make up the main types of complaints received by the public attendance service of ICP-ANACOM, both with respect to the fixed telephone service (FTS), and with respect to the Internet access service (IAS).

Graph 1. FTS complaints by subject



Graph 2. IAS complaints by subject



Therefore, interruptions of service should be avoided and where interruptions do occur, rapid restoration of service needs to be ensured, taking into account the requirements of the various services offered to end-customers.

As part of its analysis of the various relevant markets, ICP-ANACOM has concluded that Grupo PT has significant market power (SMP) on these markets, thereby imposing obligations including obligations of access, non-discrimination and transparency.

The practical application of these obligations can be found in Grupo PT's various reference offers, in particular, the reference offers of:

- (a) Poles Access (RPAO)
- (b) Ethernet Leased Lines (RELLO)
- (c) Leased Lines (LLRO)
- (d) Wholesale Line Resale (WLRO)
- (e) Duct Access (RDAO)
- (f) Local Loop Access (RUO)
- (g) Interconnection (RIO)
- (h) Internet Access (RIAO)
- (i) Rede ADSL PT

ICP-ANACOM has intervened with regard to the various offers, in terms of the quality of service indicators and respective compensation due where respective targets, as established, are not achieved. Such intervention has involved:

- (a) the review of targets;
- (b) imposing new levels of service (e.g., Premium service);
- (c) increasing compensation levels and simplifying procedures for the determination and payment of such compensation;
- (d) the obligation to publish performance levels.

Despite intervention by this Authority, some issues have come to light, related to the process of measuring quality of service indicators - especially issues related to fault repair - and the respective allocation of compensation, as detailed in section 2.

A study in this regard was conducted by PriceWaterhouse&Coopers (PwC) with reference to the first half of 2007, focusing on the supply and restoration of the unbundled local loop access service and leased line service; this study was delivered to ICP-ANACOM in 2009 and identified a number of aspects with need for improvement.

Although a decline has been reported in demand for certain wholesale services by certain operators, hundreds of thousands of alternative operator accesses are still supported over the various wholesale offers. This gives ICP-ANACOM good grounds for intervention, whereas, with the completion of the analyses of markets 4 and 5 and subsequent review of two of the most relevant reference offers - the RUO and RDAO, intervention at this juncture appears timely.

Accordingly, the issues which have been raised by the various entities are set out systematically in section 2 and analyzed in section 3.

By determination of 20.10.2011, the Management Board of ICP-ANACOM decided to conduct a prior hearing of interested parties and to undertake the general consultation procedure in respect of the draft determination proposed; these procedures took place between 26/10/2011 and 19/12/2011, whereas the comments received and the respective analysis and reasoning, as set out in the "Report of the prior hearing and general consultation on the draft determination on the procedures to be followed in evaluating quality of service of regulated wholesale offers", forms an integral part of the present deliberation.

By determination of 16.02.2012, the Management Board of ICP-ANACOM approved:

- (a) the report of the prior hearing and of the general consultation and the draft decision to be notified to the European Commission, BEREC and the NRA of other Member States, as on the procedures to be followed in evaluating the quality of service of regulated wholesale offers.

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- (b) notification of the draft decision to the European Commission, BEREC and the NRA of other Member States, pursuant to paragraph 1 of article 57 of Law no. 5/2004 of 10.02, as amended by Law no. 51/2011 of 13.09.

On 22.3.2012, the European Commission issued its response to the notification, making no comments thereon.

2. ISSUES RAISED RELATED TO THE EVALUATION OF QUALITY OF SERVICE OF REGULATED WHOLESALE OFFERS

According to Optimus, there are significant discrepancies in the method used to calculate fault repair times, resulting in significant disagreements as to performance and the respective calculation of the compensation that PTC is required to pay Optimus for failing to meet the established target.

Optimus claims that such disparities result mainly from three aspects:

- (a) Differences in criteria for determining the instants of opening and closing faults.

According to Optimus, PTC registers a fault as being closed by reference to the date and time that the fault was actually repaired, regardless of when notice of the repair is given to Optimus. However, Optimus claims that the process of determining resolution of the fault with the customer can only occur upon PTC's notification, given that the end-customer will remain unaware that the fault has been repaired, unless the repair is actually carried out on the end-customer's premises or unless the end-customer is continually testing the service.

Optimus stresses that, in point 7.2.4 of annex 12 of the RUO, it is determined that the closure of a fault occurs "when the owner of the fault informs the owner of the problem that the fault has been resolved".

Optimus calls for clarification to be provided on this matter, to ensure that there is an alignment between PTC's objectives and those of the OSP and the end-customer.

Optimus also claims that, in the case of faults where there is a requirement to schedule intervention, there is no maximum limit on the period of time which elapses between the date on which scheduling is communicated and the scheduled date (and time), whereas PTC only counts the period of time elapsing from the date scheduled for the fault's repair¹.

Such situations were also identified by PwC, which reported that the beginning and end of the service's interruption were not being counted in an appropriate manner and that, in certain cases, measurement of the period was halted without the fault actually being repaired or the supplied service operating properly.

¹ Optimus states that in the WLRO, these situations represent over 90% of cases, and in many situations, PTC undertakes repair of the fault prior to the scheduled date.

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- (b) Differences in criteria for measuring fault repair times in situations of multiple fault occurrence.

Optimus argues that PTC has strong incentive to close faults improperly, claiming that situations of reoccurrence (or improperly closed faults) are being considered as new faults.

Furthermore, Optimus reports that it had informally agreed a process with PTC for reopening faults whereby, following an incorrect closure of a fault, it is reopened where so requested within 8 working hours following its closure. According to Optimus, this systems means that situations of improper closure are flagged and that these faults are reported as being open for a longer period, with application of the system of joint interventions² providing quicker resolution. However, Optimus reports that PTC does not accept measurement of these faults, in terms of service level agreements (SLA), as a single fault (whereas Optimus accepts that the period of time elapsing between the initial closure by PTC and its reopening by Optimus may be excluded from consideration), choosing to consider two separate faults.

In addition to the disagreement over PTC's stance, as described above, Optimus considers that the time limits agreed informally as on the reopening faults are short and preclude timely analysis (4 consecutive hours under the *Rede ADSL PT* and *WLRO* and 8 consecutive hours under the *RUO*).

According to Optimus, about 30 percent of faults are subject to reopening and, in about 70 percent of the cases, it is concluded that, as the fault persisted, PTC's closure of the fault was improper.

- (c) Disagreement between the parties on the allocation of responsibility for the fault.

Optimus calls attention to the absence, in wholesale offers, of any mechanism to assign responsibilities for the purposes of invoicing, claiming, in its case, that disagreements in this regard have amounted to around 16,000 euros (to March 2011).

Optimus reported that, at the end of 2007, it agreed on a procedure with PTC on the assignment of responsibility in faults under dispute for the purposes of invoicing (but not applicable, however, for SLA purposes). This agreement was based on applying a ratio of responsibility determined through an analysis of samples (over a certain period of time during which Optimus technicians accompanied PTC technicians in the repair of faults). However, the agreement was terminated by PTC at the end of 2009.

This issue was also raised by a communication submitted by OniTelecom which states that the absence of proper documentation supporting the communication of undue faults has caused ongoing disputes between PTC and OniTelecom, whenever there was any question as to the correct classification of these faults.

² According to Optimus, joint interventions are used, above all, in cases of fault reoccurrence.

In this case too, PwC noted that there were cases of fault repairs that were not included in the indicators reported by PTC, particularly when the company considered that offer beneficiaries were responsible for the fault.

In the particular case of the RUO, Optimus:

- (a) proposes that certain procedures/services be formally regulated and/or made subject to regulatory intervention, including joint interventions, common fault detection mechanisms and assisted restoration of service³.
- (b) identifies, as critical, the effect of seasonality in certain exchange areas resulting in significant increases in the volume of customer complaints, with the service cut off for periods which far exceed those contracted, leading to an increase in customer churn rate. According to Optimus:
 - the service provided to customers connected to exchange areas in Greater Porto and to the exchange area of Caneças have been constantly affected during the months of highest rainfall, with waiting times for the resolution of faults far exceeding those defined under the quality of service targets - in some situations, fault repair times exceed 20 days (which compares very unfavourably with the maximum repair times reported for NORMAL loops - 28 working hours).
 - a sub-universe of faults recorded in periods of adverse weather result from common faults occurring in PTC cables which affect multiple customers simultaneously. Optimus claims that this type of fault has a significant impact, requiring a rapid response in its resolution and its communication to the OSP. Additionally, when such faults occur, Optimus reports that, generally, no estimate is given for the time to resolution and no detail or update is given of the status of the situation in question.
 - it questioned PTC in early 2010 on the implementation of procedures to minimize the effects of the winter months on the volume of faults; without going into detail, PTC responded that it had taken a number of measures, whereas Optimus considers that the level of faults reported in early 2010 in no way indicates that the situation is under control; as such Optimus questions the implementation of any consequent action.
- (c) reports that, in the calculation of compensation payable for non-fulfilment of quality of service levels, PTC calculates the indicators every six months; this is inconsistent with the provisions of the offer - even while the assessment of quality of service should be performed every six months for the purposes of payment of the respective compensation (as stipulated in section 2.7 of Annex 13 of the RUO), the indicators should be calculated on a quarterly basis (as stipulated in Annex 12 of the RUO). Optimus claims that, with PTC's approach, the poor results observed during the fourth

³ PwC also noted that there were procedures such as joint intervention, which, while resulting from an agreement between PTC and the beneficiaries were not formally defined, meaning that compliance with these procedures could not be ensured, so hindering the continuity and traceability of the process in situations which may impact the allocation of responsibility for faults and undermining the performance of processes and levels of service provided by the beneficiaries to the end-customer.

quarter of the year (with periods of heavy rainfall) are "offset" by the higher levels of service that are generally observed in the third quarter; the same occurs with respect to the first (also heavy rainfall) and second quarters.

3. ANALYSIS

Given the situation reported in section 2, and with respect to indicators of quality of service produced (and reported) by PTC and by the offer beneficiaries, it was concluded that it is necessary to ensure that the information provided according to the quality of service indicators reflects the situation as perceived by end-users, in particular as regards end-user perception of quality of service.

These findings are all the more evident when differences persist about the levels of quality of service actually delivered, differences which so far have been resolved voluntarily by the operators concerned.

Accordingly, there are now grounds for ICP-ANACOM to intervene, which intervention should be transversal as to all wholesale offers, since the clarifications and procedures in question are general and are applicable regardless of the offer in question.

In this context, it is important to clearly define the procedures to be followed in measuring the times taken in the delivery of various services and as regards the information provided for under the wholesale offers, so that the measurement criteria and methods employed by PTC and by the various offer beneficiaries are aligned. Additionally, the wholesale offers should provide clear definition of situations which may give rise to questions and to the adoption of different approaches by PTC and offer beneficiaries in measuring and calculating indicators.

This analysis was performed taking into consideration the recommendations of PwC and the concerns expressed by the operators as identified above, as well as the best practices of the various wholesale offers of PTC and procedures agreed on the margins of the wholesale offers.

3.1. Measuring fault opening and closure times

It is important to clearly define the instants marking opening and closure for the purposes of measuring fault repair times.

3.1.1. When to start counting the fault repair time

There is consensus, given the analysis of the various reference offers and the conclusions of PwC's audit, that fault repair time commences from the instant that the beneficiary reports the occurrence of a valid fault to PTC (i.e., when PTC receives the request).

D 1. The measurement of fault repair time commences from the instant that PTC receives notification that a valid fault has occurred.

In the RUO, PTC distinguishes situations where fault repairs are scheduled with the beneficiary (in particular in the case of joint interventions⁴) defining that, in this case, measurement of the time shall commence from the scheduled date/time (although stating that the time elapsing between "date/time that the fault is reported" and "date/time scheduled for repair" is nil).

Whereas, according to PTC, the time elapsing between "date/time that the fault is reported" and "date/time scheduled for repair" is measured as nil, and in order to simplify the rule establishing the instant from which measurement of the time taken to repair should commence, it is considered, as referenced above, that this instant shall correspond to the instant when the beneficiary reports the occurrence of a valid fault to PTC.

3.1.2. Instant that fault repair time is closed

According to Optimus, determination of this instant has greater impact in terms of the discrepancies between the times recorded by PTC and by Optimus.

This is because PTC considers that measurement of fault repair times concludes at the instant that the fault is resolved, regardless of whether or not the beneficiary is informed at the instant that the fault has been resolved.

In the RUO, the concepts associated with the measurement of repair times are not clearly aligned. In accordance with Section 5.1.1 of Annex 12 of this wholesale offer, loop repair time is defined as the "*time, in working hours, elapsing between the instant that occurrence of a valid fault is reported and complete restoration of service*" (emphasis added by ICP-ANACOM). Meanwhile, in section 7.2.4 of Annex II, it is set out that the duration of a fault "*commences - from the instant that it is reported by the OLO*" and "*concludes - when the owner of the fault informs the owner of the problem that the fault has been resolved*" (emphasis added by ICP-ANACOM).

The practice adopted by PTC means that the beneficiary cannot verify that the fault has in fact been resolved as at the moment which PTC reports it as being resolved, since, for example, PTC may give notice of resolution with a significant delay in relation to the date/time of actual resolution.

Measuring fault repair time as concluding at the instant that PTC informs the beneficiary that the fault has been resolved provides PTC with an incentive to inform the beneficiary promptly, ensuring that the beneficiary has opportunity to confirm proper repair more quickly and, simultaneously, ensures better protection of end-users. Moreover, this is an objective definition which is not subject to question - for example, if notification of the fault's repair is made on day x, at y hours, there can be no question from any party that this is indeed the actual time to be used to measure closure of fault, since it can be proved by both parties and it can be confirmed whether, in fact, the fault has been resolved. This is not the case if, for example, on day x+2, PTC informs the beneficiary that the fault has been repaired on day x at

⁴ Joint interventions are fault repairs scheduled at the request of the beneficiary with joint intervention by technicians from PTC and the beneficiary - Section 7.2.3.2 of Annex 12 of the RUO.

y hours (while not informing the beneficiary on day x at y hours, which therefore has no way of confirming that the service was indeed restored at that time).

In this respect, note should be made of the procedure adopted in the LLRO and the RUO on the restoration of the service.

For example, in the LLRO, it is stated that *"upon conclusion of the [fault repair] process, PTC shall inform the OSP accordingly, requesting confirmation. The OSP has a period of 4 working hours for said purpose, after which period PTC shall consider the reported fault closed, unless the OSP reports that the problem persists."*⁵

In the RUO, a similar procedure was also agreed between PTC and one of the beneficiaries, applicable to all fault occurrences (except in the case of joint interventions) where:

- (a) PTC notifies the beneficiary, immediately following repair of the fault, by telephone and through an IVR system.
- (b) the beneficiary, after receiving this notification, is given a period of 10 minutes in which to report to the PTC technician, via IVR, that the loop remains faulty, describing the fault/problem on the loop.
- (c) where, within the prescribed period, the beneficiary reports that the fault persists, the PTC technician will undertake examination/resolution and report resolution of the fault/problem on the loop to the beneficiary.
- (d) unless the beneficiary reports otherwise, within a period of 10 minutes and in accordance with point b), the fault is considered as closed.

As seen above, the procedures adopted under the LLRO and RUO are similar, differing mainly as regards the period that the beneficiary is given to confirm that the fault has in fact been resolved.

It is considered that such a procedure contributes to:

- (a) a reduction in the number of improperly closed faults;
- (b) providing both parties with greater control over the date and time of fault closures.

Meanwhile, the period given to the beneficiary to confirm that the fault has in fact been resolved should act to promote efficiency in both parties. On the one hand, and for example with regard to the RUO, it is unreasonable that PTC's technicians are called on to remain at the intervention site for too long a period while waiting for the beneficiary to respond; on the other hand, the beneficiary must be given a reasonable amount of time to perform the required tests to confirm resolution of the fault.

⁵ See section 4.2 of Annex 6 of the LLRO.

In this case, the period of 10 minutes agreed between PTC and the beneficiaries of the RUO appears to have constituted a reasonable balance, with one of beneficiaries agreeing with this period.

In other offers, such as LLRO, longer periods are specified, possibly since the tests are more complex.

Therefore, the period given to beneficiary to confirm that the fault has been resolved will depend on the offer in question, whereas it falls first to PTC to establish a reasonable period for each offer, having consulted the beneficiaries.

If, within the time limit established for confirming resolution of the fault, the beneficiary:

- (a) confirms that the fault has been resolved or does not report any information, the instant that the fault repair time is closed is the instant when PTC notified the beneficiary, immediately following repair of the fault, by phone and through the IVR system (whereas the period provided to the beneficiary to confirm the resolution may be included).
- (b) reports that the fault persists, the fault remains open, whereas the time period elapsing between PTC's notification of the fault's resolution and the instant that the beneficiary reports to PTC that the fault persists should be considered for the purpose of calculating the fault repair times, provided that the beneficiary reports within the period prescribed for confirming resolution of the fault.

Following closure of the fault, according to PTC, its technician records the fault's resolution in the relevant information system, whereby this information is immediately available on the geographical CCO for confirmation. Upon confirmation, the information system automatically notifies the beneficiary by e-mail as to the fault's resolution. It is therefore made clear that the instant of closure is not the instant of notification by e-mail, but the moment that PTC notifies the beneficiary, immediately after repair of the fault, by phone and through the IVR system (and where the fault has indeed been closed).

Nevertheless, it is accepted that different procedures may be agreed upon in view of the specificity of the offers or the beneficiaries, which, for the sake of transparency, should also be included in the applicable offers.

As such:

D 2. The closure of the fault repair time corresponds to the instant that PTC informs the beneficiary (immediately following the fault's repair, by phone and through an IVR system) that the fault has been resolved (whereas the period of time made available to the beneficiary to confirm said resolution may be included), notwithstanding subsequent notification by e-mail and without prejudice to D 3. It is accepted that different procedures may be agreed upon in view of the specificity of the offers or the beneficiaries, which, for the sake of transparency, should be included in the applicable offers.

D 3. The beneficiary, after being informed by PTC, in accordance with D 2, shall have a determined period (depending on the reference offer in question and taking into account the practice already followed by PTC) to report to PTC, via IVR, that the fault persists, describing the fault/problem, whereby the fault shall remain open. Where, within the specified period, the beneficiary fails to report that the fault persists, the fault may be considered as closed from the instant of PTC's communication, as referred to in D 2.

D 4. The period of time that elapses between the instant of notification by PTC, as referred to in D 2, and the instant that the recipient informs PTC that the fault persists is to be considered for purposes of calculating the fault repair time, provided that the information communicated by the beneficiary is communicated within the maximum period as may be defined pursuant to D 3.

3.2. Customer pending periods

There may be customer pending periods other than as observed in D 4, for reasons not attributable to PTC, which justify the suspension of the measurement of fault repair times.

For example, to take into account any constraints that may exist on the part of the beneficiary in the scheduling of intervention, it is necessary to introduce the "customer pending" concept, which corresponds to periods of time attributable to the end-customer or beneficiary and which should not be considered for the purposes of measuring repair times.

In this case, the customer-pending period corresponds to the time elapsing from the instant that the "date/time that fault is reported" and "date/time scheduled for repair" where repairs are scheduled on a later date/time on the beneficiary's initiative. Additionally, where, possibly due to lack of human resources, the beneficiary does not accept the first date/time of intervention proposed by PTC, the time between that date/time and date/time agreed shall be counted as a customer-pending period. Customer pending periods can also occur when PTC technicians need to visit the end-user's premises and, for reasons solely attributable to the end-user, are unable to perform the work required.

D 5. Between the instant of commencing measurement of the fault repair time and its closure, other customer-pending periods may occur, the criteria for which periods are to be clearly defined in the offer and consideration of which is to be reported, on a case-by-case basis, to the beneficiary.

3.3. Formalisation, in the reference offers, of the procedures as are agreed

Adherence to the principles of transparency and visibility warrant inclusion of the procedure agreed between PTC and the beneficiaries in the reference offers and their clear definition, including the procedure governing joint intervention.

As such:

D 6. A mechanism is to be included in the RUO, in the LLRO, in the RELLO and in *Rede ADSL PT* providing for joint interventions, enabling beneficiaries to schedule a joint operation by technicians from both companies for improved fault detection and repair. The procedures to be followed as regards joint interventions shall include:

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- (a) Definition of joint intervention scheduling/rescheduling times, with inclusion of a system of windows for sequential scheduling.
 - (b) The prior and express establishment of the date, time and place for the technicians to meet and the minimum waiting period.
 - (c) The availability and dissemination of the contacts of those involved in the joint intervention, which may, if warranted, be the operator customer service contact centres.
 - (d) The requirement for timely contact (e.g. by telephone) when personnel are unable to attend joint intervention within the defined period, which contact may be made, if warranted, through the operator customer service contact centres.
 - (e) The obligation not to depart the designated location without previously contacting the absent personnel (which contact may be made through the operator customer service contact centres), for which information on the date, time and location of scheduling must be clearly provided.
 - (f) The definition of procedures to report joint interventions as are performed (date and time, reason, duration and outcome of the joint intervention with assessment of parties as to their responsibility in resolution of the fault and identification and signatures of the technicians involved).
 - (g) The definition of principles to be applied in the recovery of costs in joint interventions, including the cost to be incurred by the party responsible for the fault as to the other party.
 - (h) The possibility of single scheduling for resolution of faults in multiple loops located on the same customer site.

3.4. Disagreement over the allocation of responsibilities for faults

The allocation of responsibility for faults can be confirmed in situations of joint intervention, except where the technicians of the two operators are unable to reach agreement on said responsibility.

However, joint interventions normally occur in situations of fault reoccurrence.

As such, a significant proportion of faults are not covered by this control.

Lacking sufficient data to develop, for the time being, an answer to these complex situations which require the creation of an expedited process, ICP-ANACOM takes the view that the parties themselves are best placed to develop a solution for dealing with the cases in question, whereby it falls primarily to PTC and the beneficiaries of the wholesale offers to establish an agreement to apply in these situations.

In this context:

D 7. PTC shall agree a solution with beneficiaries as on disagreements regarding the allocation of responsibility for faults, which solution shall apply both to invoicing and to the calculation of performance measurements and respective compensation for failures to meet targets, considering, in principle, that, unless otherwise agreed and where there are questions as to the allocation of responsibilities, PTC shall properly substantiate, on a case-by-case basis, any situation where it deems that a fault is not due consideration, through tests performed - indicating the respective time and date. In invoices sent by PTC to the beneficiary for improper notifications of faults, the faults in question are to be identified, allowing identification of repair requests as considered in this invoice. To this purpose, PTC is required to submit a proposal to the beneficiary within a period of 15 working days following notification of the final decision, whereas beneficiaries are required to submit any comments to PTC within 10 working days following receipt of PTC's proposal. PTC is to include the adopted solution in the relevant offers within 40 working days following notification of the final decision and shall take such comments as are submitted by the beneficiaries into account, providing reasoning where it does not see fit to consider such comments.

3.5. Seasonality effects in certain exchange areas

As regards quality of service provided by PTC under the RUO in certain exchange areas where, it is alleged, waiting times for the resolution of faults far exceed those defined in the targets, due, above all, to higher rainfall in certain months, it is ICP-ANACOM's position that, for better analysis of the situation and to gauge the possible effect of seasonality, PTC shall provide ICP-ANACOM with details of:

- (a) faults occurring since January 2011 (inclusive) and up to the most recent month for which it has information available in the exchange areas of the Greater Porto and the exchange area of Caneças. This information is to contain the average and maximum time periods for the repair of faults, for 95 per cent of cases, separated by beneficiary OSP. This information should be provided on a monthly basis and by exchange area. PTC shall also send the same type of information, as regards the times taken to repair faults as practised in the provision of its broadband and FTS retail offers.
- (b) the measures already taken, or planned, pursuant to the offer and the areas in question, which are aimed at minimizing the faults usually associated with months of higher rainfall.

The quantitative information submitted by PTC does not appear to show that Optimus, or any other RUO beneficiary, is suffering discrimination as regards repair time, compared to PTC's own customers. In fact, these situations arise in large part due to acts of vandalism (theft and damage of PTC's copper cabling) which, in months of higher rainfall, are more a factor of concurrency that ultimately limit the capacity of the technical teams to intervene, affecting both PTC customers and the customers of RUO beneficiaries. PTC also alluded to the fact that the mass deployment of the RDAO has resulted in a greater diversity of parties intervening in PTC's ducts and in an increase in situations which, owing to less diligent handling of cables, are likely to give rise to damaged cable insulation or joints with consequent exposure to moisture. This situation, combined with weather conditions, restrict

PTC's capacity to intervene, limiting the possibility of intervention being performed with reasonable timing.

Nevertheless, PT reports that in order to counteract and reduce the effects of adverse conditions, it has developed a set of preventive measures, namely:

- (a) The installation of alarms on physical infrastructure - copper cables in areas with higher incidence of theft and subsequent alerts, working closely with police authorities to respond quickly whenever alarms are activated.
- (b) In the particular case of the Caneças exchange, implementation of measures to supervise/monitor compressor functioning, to allow the existence of a pressurized network of dry cables.
- (c) Replacement of older copper network cables and of cables showing evident signs of degradation with new cables, whenever technically possible and feasible.

Accordingly, even while it is recognised that these are exceptional situations which entail complex solutions, it is expected that the measures being developed by PTC, together with the reporting of situations with common faults to the offer beneficiaries, will mean that the impact of this type of fault will be minimised.

3.6. Situation status

As regards the effect of seasonality in certain exchange areas, there are found to be common faults (affecting multiple loops in the same cable) and resolution times that, in certain specific situations and according to available information, are too long and clearly exceed the established targets. For example, if the time to repair faults is 10 hours for 95 per cent of cases, in the above case, there is a fault with a duration of 20 hours, even though this fault may be included within the 5 percent of worst cases.

To better control these cases:

D 8. PTC shall inform beneficiaries without delay when faults occur which affect multiple accesses on the same cable, and, in respect of these faults or those which exceed the targets established for maximum repair times, shall provide the beneficiary with daily updates of the situation, indicating the actions being undertaken and the (updated) target date for resolution. PTC shall also inform ICP-ANACOM, within 50 working days following notification of the final decision, as to its assessment on the development of a common fault reporting system.

3.7. Evaluation of indicators and payment of compensation for non-compliance

Notwithstanding that compensation will be calculated and processed every six months, the indicators are to be assessed on a quarterly basis.

This means that in a given six-month period, the indicators and the respective compensation for non-fulfilment of targets should be calculated for each of the two quarters of the six-month period.

D 9. For the purposes of calculating compensation, the indicators are to be measured taking into account the time period established under the respective indicator.

To enable beneficiaries to replicate the respective compensation calculations and minimize the number of interactions with PTC, it is considered that PTC must provide beneficiaries with details of the universe of faults underlying their analyses, to ensure the transparency of their offers and their efficient functioning.

D 10. PTC shall submit to beneficiaries details of the universe of faults taken into account in the analysis of indicators for the purposes of calculating compensation.

3.8. Other matters

Following the prior hearing and general consultation procedure, and it having been reported that a significant proportion of faults are classified as "force majeure", without relevant justification provided, whereby they are excluded from the universe of faults considered in the evaluation of the fault repair indicator, it is the position of ICP-ANACOM that PTC be required to provide beneficiaries with proof that a particular fault warrants classification as force majeure, except in duly justified exceptional situations where this is not possible.

D 11. PTC shall send proof to the beneficiaries that a particular fault warrants classification as force majeure, except in duly justified exceptional situations where this is not possible.

With a view to the timely implementation of these measures, ICP-ANACOM considers that they should not be subject to the entry into operation of an API.

D 12. The entry into force of such conditions as are established in the final decision does not depend on the implementation of any development of information systems, other than in exceptional situations, properly justified and so accepted by ICP-ANACOM.

4. DETERMINATION

Given the analysis conducted and whereas:

- (a) Grupo PT is subject to obligations of access, transparency and non-discrimination on the market for wholesale (physical) network infrastructure access at a fixed location, on the market for wholesale broadband access, on the wholesale market for terminating segments of leased lines, on the wholesale market for trunk segments of leased lines consisting of "Routes NC" and on the markets for access to the public telephone network at a fixed location for residential and non-residential customers, being thereby obliged to publish reference offers.
- (b) One of the essential services in the various reference offers is the repair service, the terms of which are to be clearly defined.
- (c) Auditing of the indicators of quality of service with respect to local loop access and the leased lines service of PTC identified points warranting improvement and made recommendations regarding certain aspects of the fault repair process.

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- (d) Concerns have been raised by the offer beneficiaries as regards the commencement and closure of the measured period of fault repair time, as regards the reoccurrence of faults, as regards the improper closures of faults, as regards disagreements over the allocation of responsibilities, as regards the effect of seasonality on repair times and as regards the evaluation of indicators and payment of compensation in respect of non-compliance.
 - (e) The procedures to be adopted in the measurement of fault repair times, as set out in wholesale offers, should be clearly defined so that there is no question or different approaches adopted in their measurement by PTC and the beneficiaries of these offers.
 - (f) The market analyses adopted by ICP-ANACOM, with the involvement of the European Commission as under the law, warrant development, especially in the deployment of the obligations therein.
 - (g) ICP-ANACOM shall conduct a periodic review of the wholesale offers.
 - (h) The present determination involves measures with significant impact on the market concerned.
 - (i) In accordance with paragraph 1 of article 57 of Law no. 5/2004 of 10 February, as amended by Law no. 51/2011 of 13 September, where the decisions to be adopted affect trade between Member States, the NRA shall make, by suitable means, the substantiated draft decision measure simultaneously accessible to the European Commission, to the Body of European Regulators for Electronic Communications (BEREC) and to the national regulatory authorities of other Member States, indicating any confidential information therein.
 - (j) Under the terms of Commission Recommendation 2008/850/EC of 15 October on notifications, time limits and consultations provided for in article 7 of Directive 2002/21/EC of the European Parliament and of the Council of 7 March 2002, with reference to a common regulatory framework for electronic communications networks and services, draft measures that change the technical details of previously imposed regulatory remedies and do not have an appreciable impact on the market (e.g. annual updates of costs and estimates of accounting models, reporting times, delivery times), should be made available to the Commission by means of the short notification form contained in Annex II to said Recommendation.
 - (k) By determination of 20.10.2011, the Management Board of ICP-ANACOM decided to conduct a prior hearing of interested parties and to undertake the general consultation procedure in respect of the draft determination proposed, incorporating the comments received and the respective analysis and reasoning, as set out in the "Report of the prior hearing and general consultation on the draft determination on the procedures to be followed in evaluating quality of service of regulated wholesale offers".
 - (l) By determination of 16 February 2012, the Management Board of ICP-ANACOM approved the draft decision to be submitted to the specific consultation procedure comprising the European Commission (EC), Body of European Regulators for Electronic Communications (BEREC) and the national regulatory authorities of other

Member States of the European Union, on the procedures to be followed in evaluating quality of service of regulated wholesale offers, likewise giving approval to the report on the prior hearing and the public consultation to which the corresponding draft decision was submitted, following said determination of 20.10.2011.

(m) By letter dated 22.03.2012, the European Commission ruled on the notified draft decision, presenting no comments thereon.

pursuant to the powers set out in point b), e), f), h) and n) of paragraph 1 of article 6 of the Statutes of ICP-ANACOM, as approved by Decree-Law no. 309/2001 of 7 December, in the exercise of its powers and responsibilities, as set out in points b) and g) of article 9 of the same Statutes, taking into account the regulatory objectives set out in paragraphs a) and c) of paragraph 1 and point b) of paragraph 2, both of article 5 of Law no. 5/2004 of 10 February and in execution of measures determined subsequent to the analysis of the market for wholesale market for terminating segments of leased lines and the wholesale market for trunk segments of leased lines consisting of "Routes NC", the Management Board of ICP-ANACOM determines the following:

PTC shall amend the various reference offers as stipulate time limits for the repair of faults (RUO, LLRO, RELLO, *Rede ADSL PT*, WLRO), within a period of 30 working days following notification of the final decision of ICP-ANACOM, in compliance with the following points:

- D 1. The measurement of fault repair time commences from the instant that PTC receives notification that a valid fault has occurred.
- D 2. The closure of the fault repair time corresponds to the instant that PTC informs the beneficiary (immediately following the fault's repair, by phone and through an IVR system) that the fault has been resolved (whereas the period of time made available to the beneficiary to confirm said resolution may be included), notwithstanding subsequent notification by e-mail and without prejudice to D 3.
- D 3. The beneficiary, after being informed by PTC, in accordance with D 2, shall have a determined period (depending on the reference offer in question and taking into account the practice already followed by PTC) to report to PTC, via IVR, that the fault persists, describing the fault/problem, whereby the fault shall remain open. Where, within the specified period, the beneficiary fails to report that the fault persists, the fault may be considered as closed from the instant of PTC's communication, as referred to in D 2.
- D 4. The period of time that elapses between the instant of notification by PTC, as referred to in D 2, and the instant that the recipient informs PTC that the fault persists is to be considered for purposes of calculating the fault repair time, provided that the information communicated by the beneficiary is communicated within the maximum period as may be defined pursuant to D 3.
- D 5. Between the instant of commencing measurement of the fault repair time and its closure, other customer-pending periods may occur, the criteria for which periods are to be clearly defined in the offer and consideration of which is to be reported, on a case-by-case basis, to the beneficiary.

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- D 6. A mechanism is to be included in the RUO, in the LLRO, in the RELLO and in *Rede ADSL PT* providing for joint interventions, enabling beneficiaries to schedule a joint operation by technicians from both companies for improved fault detection and repair. The procedures to be followed as regards joint interventions shall include:
- (a) The definition of joint intervention scheduling/rescheduling times, with inclusion of a system of windows for sequential scheduling.
 - (b) Prior and express establishment of the date, time and place for the technicians to meet and minimum waiting period.
 - (c) The availability and dissemination of the contacts of those involved in the joint intervention, which may, if warranted, be the operator customer service contact centres.
 - (d) The requirement for timely contact (e.g. by telephone) when personnel are unable to attend joint intervention within the defined period, which contact may be made, if warranted, through the operator customer service contact centres.
 - (e) The obligation not to depart the designated location without previously contacting the absent personnel (which contact may be made through the operator customer service contact centres), for which information on the date, time and location of scheduling must be clearly provided.
 - (f) The definition of procedures to report joint interventions as are performed (date and time, reason, duration and outcome of the joint intervention with assessment of parties as to their responsibility in resolution of the fault and identification and signature of the technicians involved).
 - (g) The definition of principles to be applied in the recovery of costs in joint interventions, including the cost to be incurred by the party responsible for the fault as to the other party.
 - (h) The possibility of single scheduling for resolution of faults in multiple loops located on the same customer site.
- D 7. PTC shall agree a solution with beneficiaries as on disagreements regarding the allocation of responsibility for faults, which solution shall apply both to invoicing and to the calculation of performance measurements and respective compensation for failures to meet targets, considering, in principle, that, unless otherwise agreed and where there are questions as to the allocation of responsibilities, PTC shall properly substantiate, on a case-by-case basis, any situation where it deems that a fault is not due consideration, through tests performed - indicating the respective time and date. In invoices sent by PTC to the beneficiary for improper notifications of faults, the faults in question are to be identified, allowing identification of repair requests as considered in this invoice. To this purpose, PTC is required to submit a proposal to the beneficiary within a period of 15 working days following notification of the final decision, whereas beneficiaries are required to submit any comments to PTC within 10 working days following receipt of PTC's proposal. PTC is to include the adopted solution in the

relevant offers within 40 working days following notification of the final decision and shall take such comments as are submitted by the beneficiaries into account, providing reasoning where it does not see fit to consider such comments.

- D 8. PTC shall inform beneficiaries without delay when faults occur which affect multiple accesses on the same cable, and, in respect of these faults or those which exceed the targets established for maximum repair times, shall provide the beneficiary with daily updates of the situation, indicating the actions being undertaken and the (updated) target date for resolution.
- D 9. For the purposes of calculating compensation, the indicators are to be measured taking into account the time period established under the respective indicator.
- D 10. PTC shall submit to beneficiaries details of the universe of faults taken into account in the analysis of indicators for the purposes of calculating compensation.
- D 11. PTC shall send proof to the beneficiaries that a particular fault warrants classification as force majeure, except in duly justified exceptional situations where this is not possible.
- D 12. The entry into force of such conditions as are established in the final decision does not depend on the implementation of any development of information systems, other than in exceptional situations, properly justified and so accepted by ICP-ANACOM.