



Telefónica Response to EC Consultation on International Roaming

International Roaming Consultation - Summary

Telefonica welcomes this opportunity to share with the European Commission our views on the functioning of the regulation and provide input to the report that the Commission is preparing for the European Parliament later in the year. Telefonica were somewhat surprised at the timetable that the Commission is following as it does not allow a full 12 months for the regulation to have had effect (as opposed to when it came into force) before requesting comments from operators. It would in our view still have been possible to meet the requirements of reporting to the European Parliament before the end of year, by conducting this consultation after the summer period.

Our comments are made on the basis of the information regarding roaming services provided by Telefónica's operating businesses units within the European Union. Telefonica businesses have separately provided information to Commissioner Reding on roaming prices in response to her letter of the 4 June.

As far as Telefonica is concerned, there is no need to extend voice roaming regulation beyond 2010 and let alone to extend to SMS and data roaming services in the EU. Telefónica have been at the forefront of roaming price reductions on SMS and data products. Mobile operators are competing aggressively in the data roaming market, both at retail and wholesale level, where consumers are already benefiting from innovative roaming services and attractive prices. This competition is driven by the fact that customers can easily purchase data access independently from voice access via a second supplier (often a second SIM is used for data) – the home phone number as a barrier to changing service provider is irrelevant when using data services.

Data roaming services are still in their infancy and clearly they meet the definition of an emerging market, where mobile operators are experimenting with different tariff structures which better match the growing demand for these services. Tariff bundles, near flat-rate tariffs, daily and monthly tariffs, pay-as-you-go charges are still being tested with consumers, in order to identify those which best meet customer's expectations. Undoubtedly, there is no one-size-fits-all solution to all types of customers and demands (except "free" where we all go out of business and there is no investment). The imposition of retail regulation tends to create price points and reduce innovation because it increases the costs of marketing alternative tariffs against a well publicised default tariff, reducing customer's ability to benefit from targeted tariff packages.

Telefónica fully support tariff transparency, as customers have the opportunity of being better informed about effective tariffs and service usage, which will increase customer's confidence in the use of services and increase overall customer satisfaction.



Telefónica businesses already have a number of transparency measures and are developing a range of transparency options that match the needs of their customers.

Much of the concern expressed by some commentators seems to be based on a view that the margin on all products should be very similar or the same. Customers for mobile services buy a bundle of products that make up their service package and market research shows they have extremely high customer satisfaction with their overall service. These commentators seem to focus on differences in the way the service is supplied, mobile operators, like many other multi-product industries, set different prices and mark-ups for products depending on willingness to pay. Differential pricing generally delivers important benefits to consumers. This is because it allows firms to maximise total demand for their products, thereby capturing economies of scale and bringing down costs per customer for all users. If companies were prevented from setting differentiated prices, they would have to raise prices on more sensitive services, leading to a fall in demand and higher average prices. Efficient price differentiation implies therefore that operators will charge more for roaming services because the willingness to pay for them is higher. This is not a market failure that requires regulation, but an outcome which maximises consumer welfare. Regulating through price caps would actually reduce consumer welfare, and particularly the welfare of those customers who do not use data roaming services.

Telefonica therefore believe that there is ample evidence to suggest that further intervention in the roaming market is not justified at this time and at the very least, further analysis over a period greater than 12 months is required.



International Roaming Consultation – Answers to questions

Question 1: To what extent do you consider that the Regulation has achieved its objectives (as described above) in relation to the following core elements of the Regulation:

- (i) reduction of retail prices to acceptable levels (the Eurotariff and its opt-out provisions) (Article 4);
- (ii) transparency of retail prices (Article 6);
- (iii) reduction of wholesale prices (Article 3); and
- (iv) supervision and enforcement of compliance, including dispute resolution (Articles 7, 8 and 9)?

Question 2: To what extent has the Regulation produced unintended consequences for mobile customers, whether in terms of the availability or quality of retail roaming services and/or the amount of information provided to end-users by their mobile operators?

Question 3: How have tariffs for making and receiving voice roaming calls on the basis of tariffs other than the Eurotariff evolved since the entry into force of the Regulation? Are these tariffs more advantageous for customers than the Eurotariff offered by their mobile operator? Please supply data which illustrate your reply.

Question 4: What has been the impact of the Regulation on mobile operators, in terms of revenues, volumes, profits, innovation etc.?

Question 5: Since the adoption of the Regulation have there been any instances of the termination or threat of termination of wholesale roaming agreements or the refusal to negotiate new ones?

Question 1:

- (i) It is true that retail roaming prices after the Regulation are lower than they were before the Regulation. However it should be emphasized that in the absence of proven market failures the efficient price levels are those set by the market. The term “acceptable” is not appropriate when discussing economic analysis we should be talking about economic efficiency. The European Commission has not identified any source of market failure that could justify a measure as interventionist as setting a price cap on retail prices, and therefore it is not possible to make judgments about the efficiency of price levels set by the market. In fact, we can only see how the market has reacted to a regulatory intervention and the threat of intervention. The regulation



in Telefónica's view had the effect of bringing forward already declining prices. Rates on a similar level as those in the regulated tariff have already been available to Telefonica Europe customers on an opt-in basis since summer 2006. The impact of the regulation has been to make equivalent rates available as a default to all customers.

- (ii) Telefónica has fully complied with the transparency provisions set out in the Regulation, and we can extract two basic conclusions from our experience:
 - Clearly transparency of prices is essential but transparency rules can inhibit innovation if they are too rigid because they can place uneconomic costs on the communication channel. Transparency can require highly personalised information. The more tariffs are offered, the more sophisticated the system needs to be to identify what tariff a customer is on and what to include in the welcome SMS or alternative delivery mechanism. Rigid rules concerning the format and structure of transparency requirements could have the effect of prohibiting some operators from launching new opt-in tariffs.
 - The usage of the pull transparency mechanism has been very limited. It can be concluded that either customers are already well informed of the prices through other channels, like the web page of the operator, or they do not need more information than is being sent through the push transparency mechanism.

- (iii) As data submitted to ERG shows, average wholesale prices have clearly reduced in line with the regulation. Overflow traffic (i.e. traffic whose price is not subject to volume commitments) has benefited the most, but discount schemes based on volume commitments have also been renegotiated taking into account the caps imposed by the Regulation

- (iv) To our knowledge operators have complied with the regulation. In Spain for example, a formal complaint filed by FACUA at CMT has been dismissed by the NRA. To the best of our knowledge, no disputes regarding wholesale agreements have been brought to NRAs. A comment on the extension of the regulation to EFTA countries is warranted at this point. Operators did their best to adapt their retail and wholesale portfolios to the new situation, but had to do it in an unfriendly environment. The process was poorly managed by legislators, who did not make



information regarding the timing available early enough. The information given was on some issues contradictory, and the timing was badly chosen.

Question 2:

- The impact of introducing a default roaming tariff has been to increase the cost of marketing alternative roaming tariffs. This is because the customer's instinct is to stick with the default (many are aware through the public debate that it has some EU level of endorsement) and therefore the sales process to offer an alternative is longer and more costly. This has reduced innovation and will have disadvantaged some customers who would have benefited from targeted tariff packages.

Question 3:

- Competition happens outside the regulated tariff on an opt-in basis, because the strict legal definition of the Eurotariff make innovation in the Standard Tariff schemes impossible.
- There is innovation and competition on tariffs other than the Eurotariff that make it unnecessary to extend roaming regulation on voice beyond 2010. Telefonica has launched a daily tariff for voice services and optional plans such as My Europe are still in place. E.g. My Europe Top (Telefónica O2 Germany): 100 minutes free Mobile Terminated (MT), 39ct Mobile Originated (MO), 29ct SMS, or My Europe Telefónica Spain 24c MO, 12c MT.
- Roaming promotions are still a relevant feature of the roaming market. For example Telefónica España is offering free incoming calls this summer, subject only to the usual call set up fee. As long as roaming traffic remains highly seasonal we would expect the use of these types of promotions to continue.
- Those tariffs attempt to simplify transparency by bringing the roaming experience closer to "home" and introducing non-linear fee components. They tend to attract the higher usage roamers or those with special geographic interests

Question 4:

- It will not be possible to assess the total impact of the regulation until a full 12 month period has elapsed. The roaming market is seasonal and we need to observe the



impact over the summer period. We believe that the “roaming is expensive” message that the Commission has been (and is still actively) communicating on SMS and data may be having a spill over effect on peoples view of voice roaming, making it difficult to asses the full impact of the voice roaming regulation. The rest of the year is not sufficiently indicative, although a few preliminary conclusions can be drawn:

- Traffic volumes have not been significantly impacted by the Regulation. This can be explained by the fact that the majority of customers joined or were moved in to the Eurotariff on an opt out basis, and therefore are generally not sufficiently aware of the change in the price.
- On the retail side, revenues from roaming have been reduced compared to the trend, because demand has not responded to the price decrease.
- On the wholesale side, net buyers of traffic have benefited from regulation while the impact on net sellers has been negative
- Overall, the contribution of international roaming to the EBITDA generation is lower as a result of the Regulation. Given the competitive nature of the market, a waterbed effect is likely to take place, and consumers of domestic services are likely to be negatively impacted.

Question 5:

- Small operators have not been adversely affected by the way that other operators have implemented the Regulation. There has been to our knowledge no termination of agreements or refusals to negotiate new agreements. It could happen that in certain cases it is no longer profitable to engage in a bilateral agreement, particularly if the two operators involved are very small. If the traffic exchanged is small, wholesale revenues or retail margins might not exceed the costs associated with the service (interoperability tests, negotiations, consolidation, regular maintenance, fault troubleshooting, monthly billing & settlement, fraud management, etc.). However, it should be remembered that there have always been intermediaries that are able to aggregate traffic from different operators and achieve the necessary economies of scale. Therefore this should not be a bar to connectivity between operators.

Question 6: What measures could be taken to avoid the adverse effects of inadvertent roaming, whether by means of voluntary co-operation between operators or by means of regulatory or legislative action?

Question 7: If you are an operator, what measures (technical or otherwise) have you taken to deal with the issue of inadvertent roaming, both to prevent it happening and to



compensate for the adverse effects once it has been shown to have occurred? How do you raise awareness of the problem and the potential remedies on the part of your customers?

Question 6:

- Inadvertent roaming cannot be avoided technically unless roaming is barred entirely and the Regulation cannot change this. Operators have taken various steps appropriate to the specific market circumstances where it occurs; there is no simple regulatory fix for this problem. Nearly all mobiles allow customers to bar roaming manually and ultimately this can avoid the problem, albeit with some level of inconvenience. The Commission in the regulation fully accept that roaming involves additional costs for operators and therefore until there is some 100% technical solution to avoid it, there will be a legitimate charge raised for using another operators network. To be clear, eliminating roaming charges across the EU is not a legitimate answer to this problem.

Question 7:

- On customer service, the call centres advise the customer to switch to manual network selection. If this is not sufficient, the call centre has the ability to bar, at the request of the customer roaming altogether for the customer.

Question 8: What has been the impact on mobile users and service providers of the implementation of the Regulation as far as roaming within, from or between the outermost regions is concerned?

Question 9: What additional measures (if any) have been taken by the Member States or their NRAs to address roaming between the outermost regions and other parts of the EU?

Question 8:

- The extension of the regulation to EFTA countries was poorly managed by the legislators. Information regarding the timeline was not readily available and when it was it was contradictory. The actual timing was also badly chosen in the overall implementation time frame because it fell into the Christmas freeze period, when due to the high customer activity typically no changes are made to billing systems or other technical infrastructure.



- In relation to roaming in the Canary Islands, they are treated as any other Spanish regions and no particular issues have arisen with other operators.

Question 9:

- No response

Question 10: What has been the financial impact (revenues, costs, profits, volumes etc.) on smaller mobile telephony providers of the application of the Regulation since its entry into force on 30 June 2007? Please provide financial data and any other information in this respect wherever possible (which will be treated as confidential if so requested).

Question 11: Has any operator encountered problems when seeking to agree a wholesale roaming agreement with an operator in another Member State? What kind of problems were these (e.g. for SMS interworking)? Were they resolved in the end? Was the issue referred to an NRA? If so, what action has been taken or is in train to address those problems?

Question 10:

- Small operators are not at a general disadvantage with respect to large groups. As buyers of wholesale services, they can choose in each among at least three network operators, who are strongly competing for inbound traffic, irrespective of the size of the home operator. Regulating wholesale rates may over time reduce the ability of smaller operators to make highly differentiated offers to other operators as sellers of wholesale services, although this has yet to be observed.
- As sellers of retail roaming services, and because visiting operators generally have access to all networks in the visited country, which means that the roaming service that small operators offer to its customers is of the same quality as the service offered by its competitors in the home country, including members of multinational groups. Note that at home the quality of service will be different because each operator has access only to its own network.

Question 11:

- Telefonica has not experienced any problems in this area and the Telefónica group is eager to negotiate bilateral roaming agreements with any operator.



Question 12: To what extent is the use of traffic steering accompanied by a lower retail price for the roaming customer? Where lower roaming prices are conditional upon the use of a preferred visited network, how effective is the traffic steering in practice in ensuring that the preferred network is used? Please provide detailed data where possible.

Question 13: What techniques are applied to implement traffic steering in practice? Is the roaming customer informed in advance about the steering and does he have the possibility to override it?

Question 12:

- Telefónica uses traffic steering to manage its costs and enable the development of innovative tariffs. Telefonica in Europe has tariffs where customers pay the same price on any network in a country, so there is no financial incentive/need for a customer to manually select a network. This enables simple tariff structures to be developed but keeps risk with the operator, as traffic steering is not 100% effective. This means that the operator will face extra costs when the traffic steering is less effective, not individual customers. We compete in the retail market and therefore have all the incentives to negotiate good prices for the use of foreign networks, route our traffic to the best and cheapest networks, and develop retail roaming services that deliver good value for money compared with our competitors

Question 13:

- Traffic steering is a wholesale tool. Techniques continue to improve in effectiveness but it is unlikely to ever be 100% reliable. Telefonica relies on Traffic Direction to minimise costs and provide a seamless roaming experience for customers where the balance of risk is with the operator. Those lower costs are passed onto the customer in form of lower retail pricing. The roaming customers are informed about the networks they are in, and they may choose other networks where the roaming experience is better, although this is unlikely to be necessary or beneficial. However, the price they pay will always be the same irrespective of the network they choose. In an open and competitive market, other operators are free to choose alternative models that share risk in different ways allowing customers to choose what suits them best.



Question 14: Have you identified any significant effects on domestic prices or changes in an operator's tariff structure for domestic voice calls or other mobile services introduced after or shortly before the entry into force of the Regulation? If so, please explain providing details of the changes in terms of timing, scope and prices.

Question 15: What, if any, has been the impact of the Regulation on reciprocal roaming arrangements between EU/EEA mobile operators and their counterparts in other third countries?

Question 16: Have any Community-based providers of mobile roaming services negotiated agreements with third country operators concerning a reduction of wholesale roaming tariffs comparable to those set up in the Regulation?

Question 14:

- It is hard to isolate quantitatively the impact of the roaming regulation, because domestic prices would have evolved in the absence of regulation. However, economic theory tells us that there is a waterbed effect, and given the competitive nature of the domestic retail market the waterbed effect is almost full. As a result, end user benefits from lower roaming prices are largely compensated by the waterbed effect on the price of domestic services. That is not to say that domestic prices will necessarily rise but that there is less room for them to fall. Put simply, in the absence of excess profits (which there is no evidence for) then significant reductions in revenue will have an impact on prices elsewhere.

Question 15:

- Due to seasonal effects and bearing in mind that we have not been through a full 12 month cycle it is not currently possible to make a reasoned reply to this question.

Question 16:

- The results of the negotiated agreements with third country operators are consequence of the competitive environment in the roaming market and are the outcome of the natural evolution of that market. As previously stated, no significant impact can be observed from the entering into force of the Regulation on these other countries at this time.



Question 17: Please provide details of changes from per second to per minute billing for voice roaming services which have occurred since or shortly before the entry into force of the Regulation. Were customers informed of those changes in advance? Have practices for new customers changed? What are the common billing practices for domestic and roaming calls?

Question 18: Do you consider that steps should be taken to ensure that the billing methodology applied to regulated roaming calls guarantees per second rather than per Minute billing? If so, what action would be required (i.e. should this be left to the industry to tackle via self-regulation; should the Member States or NRAs intervene under existing powers and responsibilities; or is legislative action at Community level necessary)?

Question 17:

- Telefonica businesses in Europe did not change charging increments other than to comply with the regulation. Domestic billing practices are very heterogeneous and respond to the specificities of each market. In all cases, however, there is a fixed fee per call, either as a set up charge or as a first charging increment of 30 seconds or one minute.

Question 18:

- Telefonica does not consider it necessary that per second billing is mandated in roaming for the following reasons:
 - The Commission would effectively dictate not only the price, but also the retail pricing model – this would constitute an even greater intervention in the retail market than already is the case
 - Dictating the charging increments would leave even less flexibility for innovation in the Eurotariff
 - Per second increments are not available in every market in Europe, in the medium term this may spill over into the domestic price models, without justification. For example, for a German customer a 20 second roaming call would be cheaper than a 20 second domestic call.
 - The operator faces costs per call – i.e. listing of CDR on paper bill (weight of letter), clearing house fees vary per CDR and thus at the very least a call set up fee is warranted.
- If action were to be taken by legislators or regulators, it is important to ensure that no country is discriminated against and that it does not conflict with national law. Certain



countries have mandated per second billing at retail level, but call set up fees are allowed, while others countries give operators freedom to choose the preferred tariff structure.

Question 19: Do you think it necessary to maintain the provisions of the Regulation dealing with retail prices for roaming services – in particular the mandatory Eurotariff -beyond the current expiry date of the Regulation in June 2010? If yes, why; and if not, why not?

Question 20: What evidence is there of competition between providers of intra-Community mobile voice roaming services in the provision of such services other than by means of the Eurotariff? To what extent do these alternative offerings satisfy the needs of roaming customers?

Question 21: In the event that the Regulation were left to expire on 30 June 2010, do you expect that providers of intra-Community mobile roaming services would maintain their Eurotariff or other retail offerings below the price ceilings applicable under the Regulation? What is the basis for your opinion in this regard?

Question 19:

- No – Regulation inhibits price innovation and prices will not rise; prices were going down without the regulation and we believe they will continue to do so independently of regulation.
- Even if prices are simply maintained there will effectively be an annual decrease through inflation.
- Through Regulation 717/2007, legislators are actually interfering in the way prices are set in a competitive market, without previously identifying the market failure or adequately considering less intrusive regulatory options.
- Article 95 of the EU treaty does not provide an adequate legal basis for price intervention.
- The costs and optimal prices of International Roaming services are largely determined by local conditions, both at retail and wholesale level. NRAs are best equipped to determine the correct prices.



Question 20:

- Telefonica alternatives to the Eurotariff.
 - My Europe Top of Telefónica O2 Germany: 100 minutes free Mobile terminated (MT), 39ct Mobile Originated (MO), 29ct SMS
 - Telefonica Spain – daily tariff and My Europe. 24c MO, 12c MT plus set up fee.
 - Telefónica Spain, for instance, is offering free incoming calls this summer, subject only to the usual call set up fee

Question 21:

- As stated in the answer to question 2 having a highly publicised default tariff creates a barrier in the form of marketing and sales costs to introducing new alternative tariffs. If the regulation was removed Telefonica would expect new tariffs to arise and for some operators they would become the default tariff but for other operators they may stick with the Eurotariff. Customers would therefore have a choice of tariff from their operator or could switch to an alternative if they felt that another operators roaming offering was better for them. So abolishing the Eurotariff would spur competition, as some of the opt-in schemes could be rolled out per default. It would make tariffs more transparent and easier to communicate – e.g. making and receiving a call at 30ct is easier to remember than making a call 49ct and receiving a call 24ct or a daily tariff with domestic prices for a small daily fee or a single price for making and receiving calls.
- There was competition before the Eurotariff and this has continued with new tariffs & offers which have been launched by mobile operators.
- In some countries prices cannot increase without triggering special cancellation rights for customers enabling them to terminate contracts.

Question 22: Should wholesale regulation be maintained and, if so, for how long? If not, why not? What is your estimate of the share of total wholesale roaming capacity that is captive, i.e. produced on an intra-firm basis rather than purchased as an external input factor?

Question 23: What would be the effect if the retail pricing provisions of the Regulation were to expire, while the wholesale price obligations in Article 3 (adjusted as appropriate) were maintained? If so, for how long should the wholesale price obligations be maintained?



Question 22:

- Wholesale regulation is not required – competitive pressure will be sufficient; there is significant competition in the market and therefore further roaming regulation is unnecessary. Almost all countries have three network suppliers and traffic steering is an effective negotiating tool.
- The share of wholesale roaming that is captive is not a relevant indicator of the competitive nature of the market. It is logical that operators within the same group use their own networks as an input, whenever it is possible. The important aspect is that home operators, no matter how small, will almost always be able to choose among at least three suppliers.

Question 23:

- As mentioned, wholesale roaming is a competitive market and the prices should be set by the market and not regulation.
- Wholesale regulation has an impact on the incentives to innovate at wholesale level. To the extent that retail services rely on wholesale services, lack of innovation at wholesale level will have an impact on the quality of retail services. If, for instance, wholesale regulation precludes the upgrade of current CAMEL platforms, this will undoubtedly have an impact on the capacity that operators have to be innovative at retail level.

Question 24: In the event that you consider that the duration of the Regulation should be extended beyond 30 June 2010, do you think the Regulation's price caps should be adjusted to reflect market and regulatory developments in the mobile sector? If not, why not?

Question 25: If yes, what would you consider to be the right level and periodicity of those price ceilings over the extended duration of the Regulation?

Question 24:

- Regulation should not be extended

Question 25:

- Regulation should not be extended; however, Telefonica would like to respond to suggestions that link reductions in MTRs to retail roaming prices.



- The use of the visited network is more akin to a wholesale access service than to a termination wholesale service, and should not be treated as the latter (for instance, it would not make sense to impose an access price of zero because termination is on a bill and keep basis).
- Operators can negotiate with other operators which network their customer uses when roaming which is completely different to the situation for MTRs.
- Telecommunications is a fixed costs industry, and the recovery of fixed costs should be based on demand conditions. Rules of thumb like the ones used to calculate the Eurotariff (i.e. roaming services should have the same margin as the average European EBITDA margin) have shortcomings and should not be taken as definitive. (see answer to question 28).

Question 26: Taking into account the interests of mobile users and operators and the principle of proportionality, should the obligations regarding transparency contained in Article 6 of the Regulation be maintained in place (suitably adjusted), even if the price obligations themselves are allowed to expire? If so, what adjustments to those transparency obligations would need to be made?

Question 27: Do you consider that the transparency requirements of the Regulation should be improved and, if so, how?

Question 26:

- In the opinion of Telefónica there is no need to maintain obligations. Usage of the pull mechanism is very low, and customers prefer to use the web as the source of information. As an example, only one for every 1.000 Spanish subscribers using voice roaming services in Europe in the month of April 2008 (easter holiday in Spain) used the pull free of charge information service to request personalized information on prices.
- The obligation to provide information through a push mechanism is also very burdensome for operators and customers, and the intrinsic limitations of SMS technology can lead to confusion regarding the exact terms and conditions of each tariff plan. Given the current prices of voice services, self regulation should be enough.



Question 27:

- The systems to provide transparency are complex and the “personalized” requirement restricts tariff innovation because a new tariff may not be able to be compliant with transparency requirements. Using SMS messaging limits the amount of data that can be conveyed to the customer and is in many cases irritating. Over prescriptive transparency requirements limit the parameters of tariff packages.
- Exceptionally transparency obligations should be restricted to the operator’s standard tariff – any customer who proactively opts out of the standard tariff can be expected to understand the tariff he or she has actively chosen.

Question 28: It appears that there are still very significant differences between data roaming prices and those applying at national level. Respondents are invited to explain (preferably using data based on their latest standard and special domestic and roaming offers) how such significant differences can be justified.

Question 29: To what extent is regulation of data roaming services necessary to tackle the problem of high charges? To what extent does competition exist for such retail and/or wholesale services and to what extent can traffic steering be utilised for data services to the benefit of consumers?

Question 28:

- Data roaming services are different to domestic services because they require a freely negotiated agreement between the home operator and the visited operators. This has a number of implications that to a great extent explain the difference in prices:
 - Reaching agreements and updating the technical and commercial terms is costly (hundreds of bilateral agreements per operator, interoperability tests, billing and consolidation at wholesale level, etc.)
 - Domestically, when there is excess capacity it is optimal for operators to set a low variable charge and receive revenues from its end users through traffic independent charges such as monthly or daily fees, minimum consumption, etc. These charges can be common to all services or service specific. As providers of wholesale services, however, operators are constrained by the wholesale billing systems, which traditionally have worked on the basis of linear per MB prices. The limitations of wholesale billing systems have a direct



impact on retail prices, and in particular in the prices for applications that consume a lot of traffic such as internet connectivity.

- Operators are interested in upgrading their billing structures to incentivise service take up, but roaming services compete for limited development resources with other services, and upgrading the system requires time and a critical mass of traffic to justify the opportunity cost.
- All the above suggest that there has to be a delay in the trend patterns of roaming prices, compared to domestic prices, but that sooner rather than later prices will tend to converge. In fact, the tendency of roaming end user data prices is clearly downwards, and at a faster pace than domestic prices. This is especially true for internet connectivity, which accounts for most if not all of the “bill shocks”. This trend has been possible thanks to developments in wholesale tariff structures, towards so called multilevel tariffs, that have lower per MB prices for heavier sessions.

- Further to the arguments mentioned above, which focus on differences in the way the service is supplied, mobile operators, like many other multi-product industries, set different prices and mark-ups for products depending on willingness to pay. Differential pricing generally delivers important benefits to consumers. This is because it allows firms to maximise total demand for their products, thereby capturing economies of scale and bringing down costs per customer for all users. If companies were prevented from setting differentiated prices, they would have to raise prices on more sensitive services, leading to a fall in demand and higher average prices. Efficient price differentiation implies therefore that operators will charge more for roaming services because the willingness to pay for them is higher. This is not a market failure that requires regulation, but an outcome which maximises consumer welfare. Regulating through price caps would actually reduce consumer welfare, and particularly the welfare of those customers who do not use data roaming services.
- As a final comment the differences between national and EU prices are not always as great as the EC seems to think. E.g. the Prepaid data tariff in EU countries for Telefonica O2 Germany customers is the same as the standard national tariff.

Question 29:

- Data roaming market should not be regulated because:
 - It is a young, emerging market



- Number of data roamers and data roaming traffic is small, but increasing rapidly
 - There is a healthy level of competition in the market
 - Prices are already falling rapidly, driven by market forces
 - We are still experimenting with tariff schemes on a national level and have not yet identified optimal tariffs. The knowledge about consumer demand and preferences is not yet comprehensive enough.
- Telefónica acknowledges that prices for applications such as internet connectivity have been high and that the structure might not be optimal. As explained above, operators have all the incentives to change this situation, and are taking appropriate measures both in wholesale and retail markets. Multi-step wholesale tariffs with a low per MB price for internet connectivity, agreed voluntarily and bilaterally, are becoming the norm, and are favoured by the biggest operators. They have been mirrored at retail level by near flat tariffs for internet connectivity and by mechanisms that allow customers to control usage and expenditure and therefore increase end user confidence (see q. 33).
 - It is however misleading to treat all data services equally. Low bandwidth applications such as telemetry, MMS or push e-mail (Blackberry) are successful services for which operators have found price structures that meet consumer demands. Perhaps the best example is blackberry usage. For a relatively low daily or monthly charge (Telefónica Spain 5€/day with My Europe, 8€/day by default, only when the service is used) the customer enjoys unlimited access to e-mail (including downloading annexed files).
 - There is competition for both retail services and wholesale services. At retail level, it is important to note that all operators have access to all networks in a certain country. This implies that network quality considerations that might have an impact at domestic level, where for instance not all operators offer the same coverage, are not relevant for roaming services. At wholesale level, almost all EU27 countries have at least three networks with national coverage, and traffic steering can be used by home operators to choose the cheapest supplier. As a matter of fact, competition for data traffic is stronger because laptop traffic can usually be routed to a different network than voice traffic. Logically, the lower variable costs are translated to end user tariffs.

Question 30: To what extent do potential substitute services impose competitive constraints on data roaming services? To what extent might future market or technical developments tackle the problem? Are regulatory solutions other than price regulation possible? If so, please explain.

Question 31: Can the problem of high charges for data roaming services be tackled by wholesale regulation alone? If wholesale regulation is to be considered, how should it be constructed? For example, should it be based on linear pricing (i.e. a fixed charge per MB or other charging interval) or should it be non-linear, i.e. with declining rates per MB or other charging interval? What charging intervals should it incorporate (e.g. per 100kb, per MB or other)?

Question 32: What additional costs, apart from the wholesale charges, are incurred by operators when providing data roaming services?

Question 33: Would transparency obligations on mobile operators be enough to tackle the problem of high charges? What sort of transparency mechanism can work effectively to stop the "bill shock"?

Question 34: If retail price regulation is to be considered, how should this be designed and what parameters should be used (e.g. fixed rate per MB or other interval, declining rate or daily/monthly charge)? Please provide data where deemed necessary. Data which is marked as confidential will be treated as such.

Question 30:

- Substitutes for data roaming already exist e.g. iPod Touch, seamless WiFi connectivity, daily hotel W-LAN access fees, free W-Lan access through hotspots, etc.
 - Wifi is a substitute service, and it is not a coincidence that the price of internet connectivity for laptops is already close to the price of Wifi services (12/15€ for 50MB data roaming vs 10/15€ per hour for Wifi).
 - Domestic services are also a substitute service, because with data having a different telephone number is no longer a barrier. For frequent travellers or those staying for a relatively long time, subscribing to a local operator is a valid and easily accessible alternative to roaming especially with the increasing availability of pre-pay dongles (USB 3G data modems) that are charged on a fixed daily rate.

- Future technical developments can be expected to increase the range of substitute services available (multi-technology handsets, increased Wifi coverage, Wimax, etc). More importantly, innovation in data roaming is to a great extent unpredictable and trying to regulate retail prices or the terms of bilateral roaming agreements could hinder innovation and create unintended arbitrage between different technology platforms.

Question 31:

- Any form of regulation in this market is inappropriate, and this is valid both for retail and wholesale services. Wholesale price controls in particular could be highly disruptive because the Regulation as a legal instrument lacks the necessary flexibility to adapt to the expected high levels of innovation in this market.
- It is instructive to look at the developments that have taken place in the last year and try to forecast what could happen in the short and medium term in an unregulated scenario. The graph below shows how, as explained, tariffs have traditionally been linear per MB irrespective of the underlying network quality (GPRS/UMTS) and the underlying service.

	YESTERDAY	TODAY	TOMORROW
GPRS	Linear X €/MB	Multistep ■ Band A x €/MB ■ Band B y €/MB ■ Band C z €/MB	Service Awareness Multistep Z
UMTS			Service Awareness Multistep W
HSDPA			Service Awareness Multistep R
LTE			Service Awareness Roaming Multistep S

- Operators have come to realize that this tariff scheme, despite having the advantages of simplicity and lower requirements on billing systems, was precluding the development of internet connection services. It was necessary to upgrade the billing platforms and introduce multistep tariffs that charge differently depending on the volume of the data session. Multistep tariffs are being introduced by several operators



and have allowed the launch of near flat tariffs in the retail market, but clearly they can be improved.

- In the timeframe of the expected Regulation of data services, it would not be strange that the need arises for operators to be able to differentiate at wholesale level depending on several parameters such as the underlying network being used or the quality of service required by a particular end user application or service. A non exhaustive list of realistic scenarios can be given where freely negotiated agreements could use differentiated pricing:
- Differentiation depending on whether GPRS or UMTS is used. The two networks are very different in terms of quality of service and congestion levels, and these differences will increase in the near future. While a seamless experience is required for end users, the same cannot be said for wholesale agreements. Domestically operators can manage the transition from one technology to the other by setting a particular handset subsidy policy to their own customers, but the only way of setting the correct incentives at wholesale level might be to use differential pricing.
- Differentiation depending on the end user, mirrored at retail level by flat rate tariffs. Through upgrades in their IT systems, certain operators could bilaterally agree to identify at wholesale level the individual number embedded in each SIM card, and set a wholesale “flat tariff” for each individual end user. It is not clear yet how this could be done, and probably the ideal model will vary for each operator, but it is certainly not a market outcome that should be disregarded.
- Differentiation depending on the bandwidth or latency requirements of the underlying service. Innovation at retail level is likely to occur and could require differentiation. For instance, certain applications might use video streaming, real time video or geographic location. If a minimum quality is required from the visited network, these applications might only be possible if visited operators are able to charge differently for them.
- It is unclear how all these developments could be fitted into a regulated scenario. Regulating wholesale prices through a cap on the average price per MB, would not allow segmentation per service/technology/network, because implicitly all underlying networks, end users and applications would have to be treated equally.
- Wholesale regulation is not a question of adapting the regulation to the multistep tariffs that we are witnessing today and deciding on the charging intervals per session. Legislators would have to foresee other types of efficient differentiation in



order not to hinder innovation in the wholesale market and hence in the retail one. With the available information, not even operators would be able to establish a price structure valid for three or four years. It certainly does not make sense for Regulators to try, especially when the market is competitive and operators are already developing wholesale tariff structures adapted to the needs of European citizens.

Question 32:

- Apart from wholesale charges, when a customer connects to the internet while roaming, for example to receive push e-mail or read the news, the retail price he pays has to cover the following elements:
 - signalling network fees,
 - costs for the international transit of the data,
 - costs for connecting to the internet from the home network,
 - data clearing house fees,
 - other costs (e.g. commercial costs, IT costs, prepay checks), the home operator's retail costs and taxes, such as VAT

Question 33:

- Telefónica, like the rest of European operators, has all the incentives to generate confidence in the use of their services. Domestically different sorts of transparency mechanisms, usage and expenditure control tools have been developed without regulatory intervention, and similar tools will be available for data roaming services. However, IT developments are expensive and regulators should not impose a detailed format. It should be left to operators to decide the type of control tools that meet their customer demands at the lowest cost.
- Telefonica businesses have a range of tools in place related to data roaming transparency and are in the process of developing more:
 - Regulation 717/2007 required operators to provide personalised pricing information on roaming data prices free of charge. The subscriber can therefore, before travelling or while roaming, request and receive through voice or SMS the personalised prices that would apply for data



roaming in any particular situation. All Telefónica European subsidiaries implemented this tool before the deadline set by the Regulation.

- Operators are already offering their customers accurate and easily accessible information through their web pages and customer research suggest that this is the first place that customers tend to look for pricing information.
- Operators are also upgrading existing usage and expenditure control mechanisms for laptop usage, which is where “bill shocks” take place. The SW manager that handles the connection to the network already allows the customer to monitor in real time the amount of data being uploaded and downloaded. This SW is constantly being upgraded, and each new version is provided to new subscribers together with the dongle or PC card and it is automatically installed before the first connection to the network is made. Existing customers receive a message through a pop up in the screen every time a new version is available for download, which if accepted takes place on line and free of charge. The latest versions have been developed with a particular focus on roaming customers, and are capable of differentiating domestic and roaming traffics. The subscriber can also set alarms when a particular level of usage is reached. A presentation is annexed to this response explaining the functioning of the tool. (As illustration, the SW manager from Telefónica España is described in an annex.)
- Telefónica is experiencing domestically with network-based expenditure control mechanisms for internet connectivity, which allow the subscriber to monitor expenditure and set consumption limits. They work with all types of internet connections, irrespective of the handset/PC being used. IT developments are planned to extend these tools to roaming data usage, and commercial availability is expected for 2009.
- It is very important to highlight the fact that developments in IT systems are specific to each operator. Even operators belonging to the same group have heterogeneous IT systems, with end users which require different tools and different retail tariffs to which the tools should be adapted. As has been mentioned, regulators should not impose a detailed format and operators should freely and competitively decide the type of control tools that meet their customer demands at the lowest cost.



Question 34:

- Retail price regulation should not be applied

Question 35: Do you think that wholesale charges ('inter-operator tariffs' or 'IOTs') for the provision of SMS services for roaming customers are subject to competitive pressure? Has this competitive pressure resulted in a declining trend in wholesale prices? If so please explain using data where possible.

Question 36: Wholesale SMS roaming charges (IOTs) appear to be higher than many retail domestic SMS prices. Are wholesale charges at current levels justified in light of the costs to the host operator for the provision of wholesale SMS roaming services? Please explain using data where possible.

Question 37: Do you believe that wholesale SMS roaming charges (IOTs) should be regulated? If yes, what should be the level and parameters of any wholesale charge limit?

Question 38: If wholesale regulation is necessary, will operators pass on the benefits of lower wholesale charges to consumers or could this only be achieved by retail regulation?

Question 39: If you believe retail regulation is necessary then what should be the level and parameters of any retail charge limit?

Question 35: see confidential version

Question 36: see confidential version

Question 37:

- Regulation is unnecessary and potentially damaging. However, if regulators decide to intervene, the regulated price should reflect the interdependencies between services from the demand point of view, just as a competitive price would.

Question 38:

- The retail market is competitive and therefore lower wholesale charges would be passed on to consumers. However, the reductions would not necessarily take place exclusively in the roaming SMS service. The reduction in the price of roaming SMS will depend on the willingness to pay for SMS



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compared to other services, and on the level of substitution between SMS and other services such as voice. Any regulated retail cap could lead to a worse outcome for consumers in the form of higher average prices (see answer to question 28). The waterbed effect takes place across a range of products that a customer buys as a service package, and there is not necessarily a one to one relationship on all products and services.

Question 39:

- Retail price regulation should not be considered



ANNEX

Transparency and Overspend prevention: “Escritorio movistar”



Transparency and Overspend prevention: “Escritorio movistar”

June 2008



Escritorio movistar

- “Escritorio movistar” is the connection manager tool distributed together with every modem and data card sold by TME
- Clients need to use it if they want to access the internet with their laptop. User friendly, it is configured to connect in just one click.
- It also can be downloaded for free from
 - <http://www.movistar.es/empresas/servicios/descargaaplicaciones>
- Version 7.0 includes usage indicators in real time, differentiating national and roaming data volumes.
- Previous versions are designed to update to the newest version: the majority of our users will have roaming volume indication.
- Escritorio as the default tool for all Telefonica operators is under study

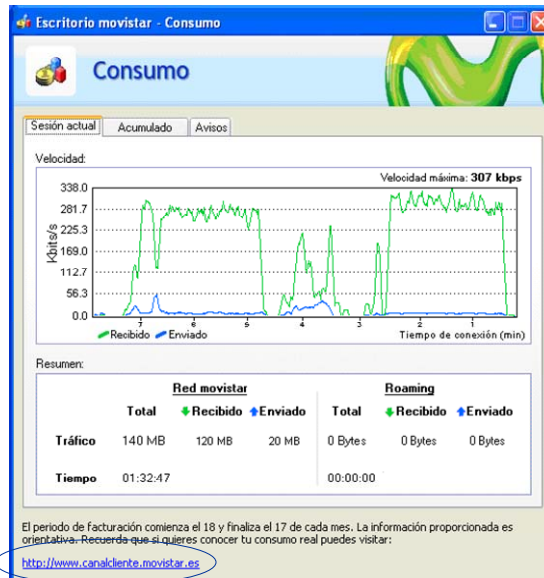
3

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Traffic usage in real time

Clicking on “Ver Consumo” opens this screen showing the traffic evolution of the current session (Kbps vs. min). It distinguishes traffic in movistar network from roaming traffic. Also upload (blue) and download (green)



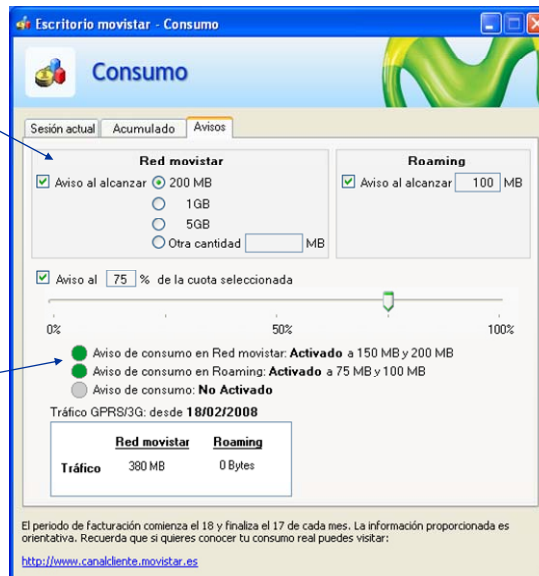
Access to real time expense in client's web space

<http://www.canalcliente.movistar.es>

5

Overspend prevention: volume alerts

- The client can set up a usage limit (MB), and a % at which to receive an alert, shown as a pop-up.
- Different limits for national and roaming



- Grey: There is no limit set.
- Green: The limit hasn't been reached.
- Yellow: you have surpassed 75% of your limit.
- Red: you are above the limit

6

Traffic Summary

The tool meters domestic and roaming traffic in the current month (MB, SMS, video-calls)

The meter can be reset to zero to start with every billing period.

Previous months volumes are also included: National traffic (blue) and roaming traffic (red)

