

## Public Consultation on a Draft Common Position on Next Generation **Networks Future Charging Mechanisms / Long Term Termination Issues**

Wind Telecomunicazioni comments –

## Question 1 (Section 1):

Do vou agree that in a multi-service NGAN environment, in which different services use a shared transport layer, different interconnection regimes for different services could create arbitrage problems? If yes, could you describe the problems that you foresee or that have already occurred. If no, what prevents these arbitrage problems in your view?

First of all, in a multi-service NGAN environment in which different services use a shared transport layer, the same interconnection regimes for different services could create several problems. In Particular Wind doesn't agree with ERG statement about the possibility to use the same interconnection regime and believe that different services need anyway a different interconnection regimes.

The same interconnection regimes for different services is not applicable even in respect to the investments done for the legacy network by the owners, many of which are not amortized yet. The actual CPNP regime is also reflecting such investments and a changing in the interconnection regime may imply the loosening of a part of them (that is transforming an investment in a sunk cost).

Moreover it is important to highlight that the IP-based interconnection between operators is far from being built, in fact the Italian telecommunication operators are interconnected only with PSTN technology (excluding IP peering agreement for unmanaged Internet traffic only) and there is no symmetry amongst them neither in the size of the networks nor in the number of subscribers nor in the level of investments made on theirs own networks nor in the call/data volumes exchanged by the same operators.

In this regard, assuming that a prerequisite for BaK is to have balanced volumes between operators, it is easy to understand how real is the risks of relevant imbalances between operators taking into account that Wind, the third larger infrastructured operator in Italy, has a mobile market share under 18% compared to a market share around 40% of the first mobile player and a fixed market share under 8,5% compared to a market share higher than 85% of the ex monopolist operator.

Quality of services is an important issue that could be compromised with a BaK interconnection regime. In fact the imbalance between the networks of two or more operators (and also the size of their customer base) could lead to anti-competitive behaviours, undermining the QoS for the smaller operators.





Question 2 (Section 1 & 2.2):

What is the influence of the separation of transport and service for the interconnection regime and in particular the charging mechanism and in what way are NGANs and BaK related?

In the paragraph 2.2 ERG stated that the transition towards IP-based NGAN is considered to be one of the main drivers for a general discussion on charging mechanisms, but Wind remarks that the NGAN, especially in Italy, is very far from being rolled out on a national wide base, and even more on European wide base.

Large scale NGAN roll out will imply very high investments which are likely sustainable only by Incumbent (in cooperation with one ore more alternative operators) preferably with state subsidies. As pointed out in Question n.1, the NGAN investments are still being debated both at political and company level with the result that in Italy there is a widespread uncertainty over the timing of the fiber roll-out process and over the parties interested in such investment.

Moreover, if one of the bases of BaK is its wide adoption in the country, it is clear that the possibility of a time progressive and patchwork roll out of NGAN would imply a geographic imbalance of the networks technology, in particular between networks of those areas where NGAN will be rolled out and networks of those areas where legacy networks and services swill remain for much longer. Similarly, that imbalance may occur among operators, in fact it is very likely that in light of the investments there will be operators who will invest in fiber roll-out and operators who will not, or not in the same proportion or with the same timing. Such differences will also be reflected on the final services provided and on the QoS of different networks.

Taking into account this scenario it is clear that separated approaches for interconnection at transport level and service level will continue to remain relevant in order to assure QoS and interoperability also considering that there are no reasons why operators offering very different services should use BaK as unique interconnection regime. Given such differences it seems unrealistic that a BaK approach will be applied to both services and especially to interconnection at service level.

Having said the above, with specific reference to the Italian situation, it must be evidenced that IP-based interconnection between operators is still far from being in place and that actually the interconnection between Italian operators is PSTN based and the interconnection charging mechanism is CPNP excluding bilateral peering agreement (in any case different from BaK) for Internet traffic.





Question 3 (Section 3.2):

How would you define the boundary for the application of BaK and where should it be located (i.e. points of interconnection where BaK is applicable)?

According to Wind's point of view, section 3.2 highlights one of the great limits of the BaK: the boundary.

Bearing in mind that actually the interconnection between Italian operators is only PSTN based, ERG defined the boundary as the minimum set of Pols at which an operator must be connected to ask for a full BaK interconnection agreement. In light of this definition, there are several problems that will likely occur like, e.g., what is the minimum number of Pols, will this number be set on a reciprocal basis, how will network difference be taken into account and who will decide this minimum number (agreement between parties or regulated decision?).

Considering that the above, two possible scenario may occur, none of which seems particularly positive:

- 1) the case in which the boundary of Pols is decided by bilateral or multilateral agreements between operators. The most obvious problem are the so called transactional costs, which are particularly relevant due to the difference in terms of market power and network scale between operators;
- 2) the case in which the National Authority decides on the right boundary to be adopted, likely without the appropriate level of information to be known and the sensitive data to be handled by the NRA may drive the final decision away from setting the efficient boundary

Secondarily asserting that the *boundary* is the set of Pols at which BaK only applies if an operator connects to all these Pols, imply a not-negligible economic impact on the operators business, in particular for new entrants or smaller operators which could represent an unjustified entry barrier, in fact the connectivity to all of Pols will imply a certain level of investment.

Furthermore, both in first and second case, if a country is characterized by few or at least one operator with a wide national network (e.g. incumbent), it is possible that the interconnection with the correct number of established Pols with OLOs may be artificially prevented by the incumbent by strategically raising interconnection costs. All the abovementioned considerations would inevitably imply a certain grade of uncertainty and a certain grade of ex-ante or ex-post NRA's intervention, thereby compromising one of the essential announced benefits of BaK, that is the significantly reduction of regulatory cost and uncertainty.





Question 4 (Section 4.2):

What is your conclusion on the relationship between the charging mechanism and penetration, usage and price level?

First of all Wind believes that establishing relevant conclusions about the comparison between CPNC and the BaK or assessing the impacts of a move from CPNP to BaK on the grounds of only two data sets seems per se not appropriate. Moreover also considering that one of the data sets should be used "with caution" (source: ERG, section 4.2, page 22) Wind suggest that the section is removed or strongly integrated since actually seems objectively insufficient to make any statistical or qualitative conclusion.

Moreover We would like to highlight three important issues that emerge from ERG's CP:

- 1) ERG used "voice only" and "mobile only" data sets as a proxy for all the services and markets including the fixed ones. This methodological approach seem to Wind not appropriate.
- 2) With the assessment in section 4, ERG enters in the retail pricing adoption/choices of national operators. The Society writer would like to point out that the choice and success of a particular pricing scheme is a decision that can only be taken by operators according to specific market demand characteristics. Assuming that a move to BaK would necessarily impact retail market dynamics with the introduction of RPP and full flat schemes seems neither justified by strong commercial economic reasoning nor a result of market evidence which actually showed exactly the opposite behaviour (i.e. move from a RPP retail scheme to CPP-like with bucket of minutes offers including received calls).
- 3) As already pointed out the CP on BaK which started inter alia with a NGANs point of view from Question n.3 onwards is mainly focused on legacy services (voice termination) with specific reference to the mobile networks. While it is not clear why ERG shifts its focus from NGAN multiservice environment to legacy voice termination. Wind points out that such a move strongly reduces ERG's CP general relevance and at the same time seems not coherent with current and future wholesale termination regulatory treatment (i.e. NRA's decision and EC Recommendation) thereby resulting in increasing operators anxieties over predictability of the regulatory scenario.

It is also important to highlight that the empirical evidences (first of all the United States, see Figure 1) demonstrate that in countries where BaK regime is adopted it is used for mobile market only and the semi-flat price scheme is the main or only price option available to customers (i.e. no "pay as you go" offers are proposed).



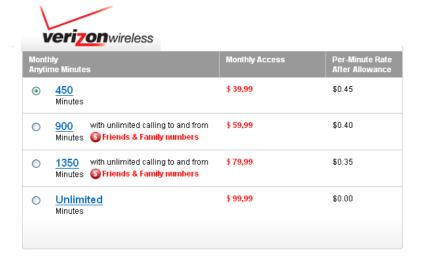


Figure 1. Example of US Verizon Phone Plan Offers (Source:http://www.verizonwireless.com)

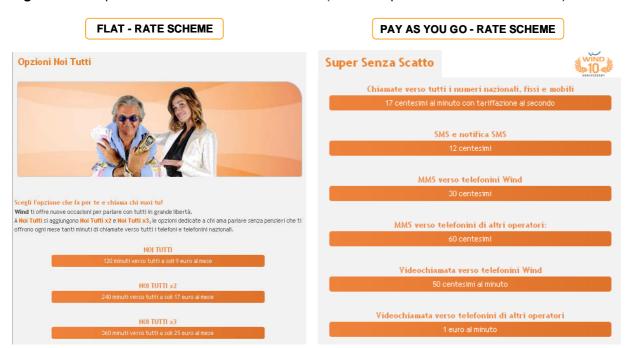


Figure 2. Example of Italian Wind Operator Flat and non-Flat offers (Source: http://www.wind.it/it/tariffe)

On the contrary, Wind highlights that in countries where NCPP regime applies (e.g. Italy, see Figure 2), there are both semi-flat price scheme and "pay as you go" offers, available to customers with the result that while NCPP enables full pay as you go offers (no access fee required) but still poses no barrier to flat or semi-flat offers, the BaK scenario seems able to produce semi-flat or flat price schemes only thereby limiting commercial freedom and customer welfare.





Question 5 (Section 5.1.3):

How does BaK affect regulatory certainty and the risk of legal disputes?

Wind doesn't agree with the statements (e.g. in section 5.1.2 of the present Draft CP), where ERG established that moving cost recovery from termination, which is a regulated market, to competitive retail markets increases incentives for cost minimization as more cost are subjected to competitive cost recovery BaK prevents excessive pricing of termination rates by effectively setting a zero wholesale tariff for termination, which means operators may cover the net cost of providing termination from their own retail users. In this way the cost recovery is moved from a market with SMP (termination), in which setting the right price depends on regulation, to a retail service that is generally offered in a competitive market. If a provider has to bill termination cost to its own end-users in a competitive market he has no incentive to charge excessive prices to his customers, because he may risk losing them.

For the Society writer, there is a serious lack in what ERG had stated above, in particular from a welfare perspective, because of in section 5.1.2 is stated that the operators can use an access fee to cover the net cost of providing termination. In fact with BaK the only way both to cover the net cost of providing termination from their own retail users and to simultaneously lead to lower average price per minute is an access fee to the services offered by operators.

In this case the loss of welfare by the end user is clear, as shown in Figure 3 and in Figure 4, because moving from CPNP to BaK imply an additional fixed fee for the basic rate plan.



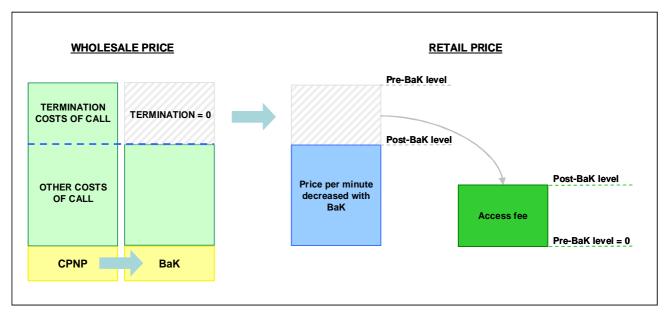


Figure 3. Shifting the cost of termination from Wholesale to Retail level

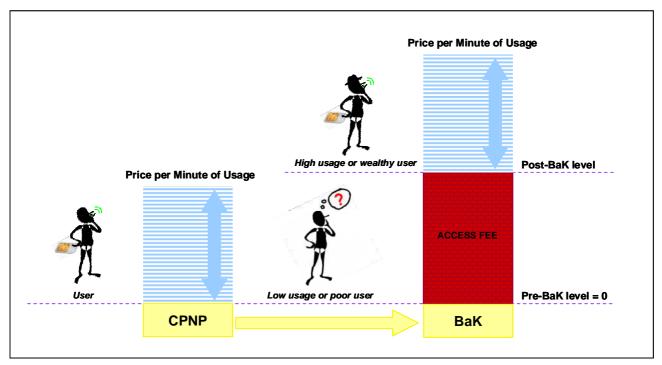
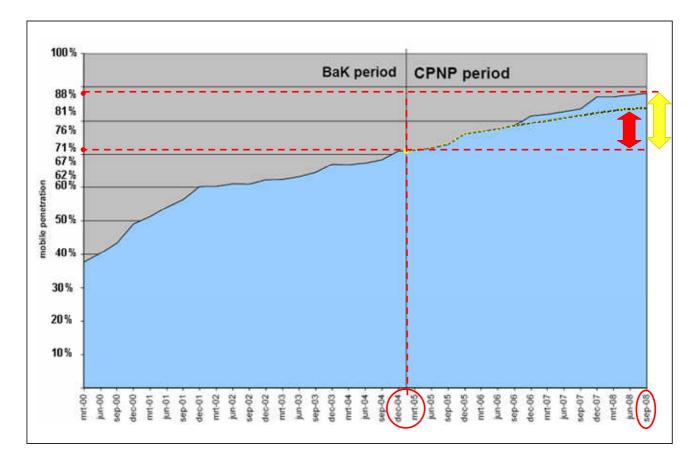


Figure 4. Loss of Welfare for end Users

The real impact of such a choice would mean that a share of population would remain out of market. In fact one just thinking about all of those end users that actually spent 2 or 3 euro per month. Applying an access fee (e.g. 2 or 3 euro) for telephone services would deny to those people and to many other the access to service itself, doing a kind of social discrimination, so it is almost like a political choice.





**Figure 5.** Saturation of Market penetration in France after CPNP adoption (Source: ERG Draft CP Next Generation Networks Future Charging Mechanisms / Long Term Termination Issues)

Making an example, the change from BaK to CPNP in France in 2005 (see Figure 5) show a typical rise in penetration often used in many economical studies, where the last part of trend in percentage of penetration (in this case the prepaid users) represent the less wealthy portion of population, which joined the market due to a reduction in fixed access charges. Moreover, if the change from BaK had not occurred, the penetration line would be very different (Figure 5, the yellow-dots line) and would have represented the typical shape of saturation (around 80%). While with the CPNP adoption, the penetration rate growth till 88% in September 2008, and it is likely that it will continue to grow.

In support of the above considerations, it is important to remark what Wind stated in Question n.4, in particular that the empirical evidences (first of all the united state) demonstrate that in countries where BaK regime is adopted, it is used for mobile market only and the semi-flat rate scheme is the mainly way by the operators to recover the costs of termination, no "pay as you go" offers are adopted, while in countries where CPNP regime is adopted (e.g. in Italy), there are both flat rate offers and "pay as you go" offers where no access fee are is required.





With reference to Question n.5, Wind also believes that BaK negatively affects on regulatory certainty and on risk of legal disputes in several way.

The first one is that if the boundary of Pols is chosen by the Authority would mean a consequent increasing of regulatory costs. As a matter of fact, if NRAs will be the one who will decide on such a relevant issue, this would mean, inter alia, managing highly sensitive and specific technical regarding the networks of the different operators. Vice versa if the decision on the boundary of Pols is left to the market, this would mean a consequent increase of legal disputes. In fact, for example, the larger operators could force the smaller one to connect to theirs network in a reciprocal but inappropriate and unbalanced way, given the network differences. Taking into account this consideration it is clear that a certain level of ex-ante control of the Authority will be necessary in any case to avoid market distortions, even in BaK scenario.

In Wind opinion a forced move to BaK may also increase the risk of legal disputes in relation to the QoS offered to smaller operators which doesn't have the necessary contractual-commercial power.

Moreover another example of BaK capability to increase legal disputes between operators and users is the possibility for a fraudulent or improper use of the networks, such as SIPT, traffic-tromboning or unwanted calls. In particular if the diffusion of BaK will not apply simultaneously to all the operators in a nation, it is obvious that all operators will have to maintain at the same time a double billing system capable of managing both BaK and the CPNP regime, thereby increasing billing costs and the possibility for anticompetitive behaviours among operators.

It must also be noted that if BaK is not adopted amongst all operators or amongst the larger part of European countries simultaneously, this could lead to legal disputes between operator also at international level.

Finally, as highlighted by ERG in page 27, Wind believe that in principle the bottleneck itself is not eliminated in a BaK regime.

Question 6 (Section 5.2.1.3):

How do different wholesale charging mechanisms impact on the number of unwanted calls? Do you expect (other) effects on consumers/consumer groups? Where possible, provide a quantitative assessment of the expected effects.

To the society writer a weighty consequence of the zero cost of termination is that could lead to improper use of networks, like SPIT or unwanted calls. This fact mean a loss of users' welfare, in fact it is reasonable that the value of being called decrease due to the increasing of spamming or unwanted calls.





The above mentioned loss of welfare bears directly on external benefits to being connected on a certain network, so the call externalities necessarily decrease. The network externality decrease too due to the above mentioned implication and with the likely quit of the network by end users caused by the SPIT and unwanted calls.

If BaK would be adopted it would be very difficult to avoid such above mentioned phenomena and would be very expensive too. In fact the risk from machines delivering recorded messages is very high and stopping this kind of fraud would be as expensive as very complex. ERG CP simply dismiss this risk due to the presence of current European telecoms law (which it doesn't allow this kind of calls) but Wind believes that the presence of a law does not by itself protect from undue or illegitimate uses since in certain cases the enforcement effort needed is particularly relevant as the experience with e-mail spam and frauds teaches.

There is also another issue to be pointed out: once again ERG has drawn its conclusion with few evidences. In particular, the conclusion that "there are not clear evidences of increasing SPIT in BaK-countries and so it is not realistic to expect that BaK will significantly increase the amount of unwanted calls" (page 34 of ERG DRAFT CP) is based on a single academic study, not taking into account that actual experiences in services where no termination fee is provided shows the opposite (e.g. voice calls in BaK countries, data and voice services provided over the Internet).

Finally Wind expressed its doubts on the relevance of using academic figures or approaches such as those shown in Figure n.3 (page 32) of the ERG DRAFT CP in order to assess or estimate the real impact on market dynamics of a move to BaK. Wind believes that such graphs, while being correct from a theoretical point of view, fail to reflect market complexities and different consumer groups attitudes due to the complexities of modelling an utility function from customer behaviours.

Question 7 (Section 5.2):

How do you assess the quantitative relevance of call and network externalities?.

Wind doesn't share ERG conclusion that BaK is likely to internalize network/call externalities.

First of all the ERG DRAFT Common Position doesn't explain one of the negative aspects of BaK, in particular the relevance for the negative network externalities of imposing an access fee.

While the access fee, as explained in the answer to the Question n.5, may be used by Operators to recover the loss of revenues from termination costs, at the same time it is important to remark that the access fee could discourage many users (e.g. low usage or low spenders) from participating to the network. Wind also doesn't agree with the statements made in this Chapter (section n. 5.2.2), in particular with the fact that in the





CPNP regime there are no flat rate for mobile calls. As a matter of fact, as shown in Figure 2, in Italy (but the same is valid for many other EU countries) there are both flat rate offers and pay per use offers. Moreover it is necessary to remark that in countries where BaK regime is adopted, is used for mobile market only and there are no "pay as you go" offers. On the contrary in CPNP countries both flat rates and "pay as you go" offers are available for all users according to customer preferences.

## Question 8 (Section 5.3.5):

How would your business be affected by a move from CPNP to BaK? Please explain the expected impact on prices, volume of supplied services and profit.

Wind doesn't share ERG's conclusion that the consumer welfare is mainly determined by the minute of use per capita neither is of the opinion that a move from CPNP to BaK would necessarily lead to an average strong reduction to real retail prices paid by customers since retail prices in a competitive environment are already the result of the meeting between demand and offer. In this respect Wind is of the opinion that, at least for legacy voice services, a move to BaK would mainly affect market dynamics with unpredictable results.

Regarding the impacts of a move from a regulatory approach to the other Wind challenges ERG reading of the graph in Figure n. 6 about the French market experience of moving from BaK to CPNP.

In particular, with reference to page 41 of the ERG DRAFT CP, Wind would like to challenge Erg assertion that "a structural break in the growth of penetration does not seem to have occurred (from 2005 to 2008, that is moving from BaK to CPNP). Rise in penetration did not significantly speed up after 2005".

To demonstrate the exactly opposite evidence, Wind used the same figure included in the ERG CP (see Figure 6)



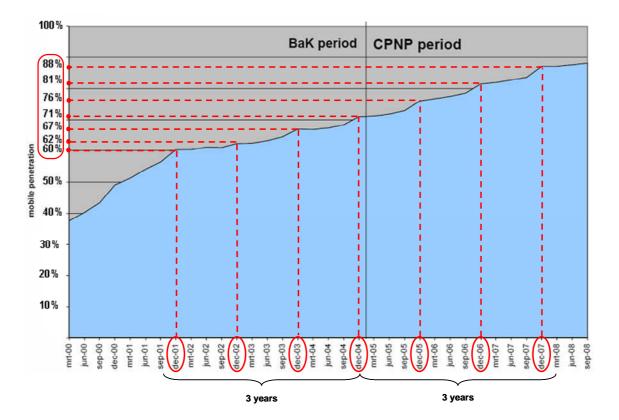


Figure 6. Trend of mobile penetration moving from BaK to CPNP in France (Source: ERG Draft CP Next Generation Networks Future Charging Mechanisms / Long Term Termination Issues)

Analysing the mobile penetration reached 3 years before and 3 years after the move from BaK to CPNP, there are no doubts that an increase in the growth penetration rate occurred. First of all it must be considered that the period analysed by the ERG (i.e. 2005-2008) is referred to a market next to its maturity and saturation, in fact in 2005 the penetration rate was already at 75%, meaning that the presence or not of a structural break in the growth of penetration should be analysed taking well into account this starting scenario.

A superficial analysis could lead to consider only the penetration trend and not the penetration growth, but if is considered that the population reached by mobile services in 2005 was about 75%, a growth of the penetration about 6,58% in 2006 and about 8,64% in 2007, reaching respectively 81% and 88% of population, clearly represent a structural break in the growth of penetration.

As a matter of fact, over 75% of penetration rate, it can be assumed that the marginal part of the population is characterized by lower usage or lower spending users (e.g. poor or very young people).

An 8,64% of growth in mobile penetration, taking into account the level of penetration reached between 81% and 88%, means clearly that population is perceiving a improvement of access conditions to mobile services after the CPNP adoption.



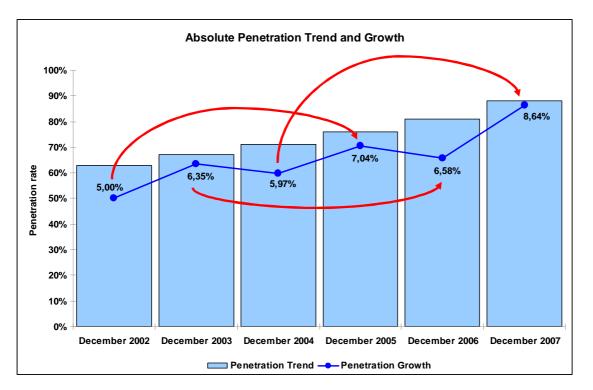


Figure 7. French mobile market - Penetration trend and growth (Data source: ERG Draft CP Next Generation Networks Future Charging Mechanisms / Long Term Termination Issues)

Another useful tool to compare BaK regime to CPNP is showed in Figure 7 (Wind revised set of data provided by the ERG in relation to the French mobile market penetration) with the year over year analysis taking into again into account 3 years before and 3 years after the change in charging mechanism; what results is that the growth of the penetration rate is relevant:

- Penetration rate data of 2005 (+7,04% in absolute terms) compared with the data of 2002 (+5% in absolute terms) shows a relevant increase of 40,8% of the penetration rate which is remarkable taking into account that such increase applied in a different point of the curve (more close to saturation)
- Penetration rate data of 2006 (6,58% in absolute terms) compared with the data of 2003 (6,35% in absolute terms) still shows a slight increase of the penetration rate of +3,6%,
- Penetration rate data of 2007 (8,64% in absolute terms) compared with the data of 2004 (5,97% in absolute terms) shows a remarkable result of +44,7%,

All the above mentioned evidences clearly shows that after the change in the termination charge mechanism a structural break in the growth of penetration has occurred.

Finally it is also possible to confirm that an increase in consumer welfare occurred after move to CPNP due to the incremental increase of penetration rate.





## Question 9 (Section 6.1):

Do you agree with the conclusion that operators/users in the BaK domain will subsidise traffic coming from outside the domain (regardless of the legal aspect)? Are there any mechanisms to prevent this and how will they work in your view, in particular to avoid arbitrage?

Wind believe that applying BaK charging mechanism to legacy voice termination services would allow to subsidise traffic coming from outside the domain. In particular BaK is one a direct cause of the so called hot potato routing and drawback. In page 44 ERG stated that BaK, as considered and defined in this CP, is only applicable at a defined boundary of the network to which the receiving users are connected. This results in a case where BaK cannot be applied to transit networks. Once again Wind would like to point out the consideration already given in the answer to Question n. 5: managing different regulatory approaches to traffic exchanged among operators based on a distinction between networks and services would clearly result in higher costs for multiple billing system and fraud control systems to avoid or reduce anticompetitive behaviours. In light of the above, Wind opinion is that for legacy voice services maintaining the actual billing system remains the more efficient solution both from an operator perspective and from a consumer welfare perspective.

With regard to PSTN-nomadic calls, is not clear who will assure the fairness of the process. In fact there should be put in place a system of assurance that guarantees the traffic where is not possible to link Pols to certain areas. This problem is not tackled well in the DRAFT CP and could leaves to several doubts and uncertainty for operators, and rising in regulatory costs.

As for carrier pre-selection (CPS) traffic treatment, Wind believes that the mark-up proposed to avoid economic distortions caused by the introduction of BaK would negatively affect the competitive conditions of CPS operators vs. incumbent if such higher costs are not appropriately taken into account in price squeeze test for retail voice calls. Once again Wind evidences how a move to BaK for legacy voice services would only result in a worsening of the economic and competitive scenario. Finally, Wind wants to express its opposition to Bill and Keep remarking that when BaK is introduced in a certain domain (country, or group of countries), while other countries use the CPNP regime, a subsidy from the BaK domain to the CPNP domain cannot be prevented, leading to an upward pressure on retail prices inside the BaK domain and downward pressure on prices in the CPNP domain. The size of this effect is much higher as much lower are the percentage of countries outside the BaK domain traffic. International disputes will likely increase and the welfare of the end users will decrease again due to the need of operators to recover this increasing of costs



Question 10 (Section 6.3):

Do you see any implementation problems for a migration period towards BaK? How could such problems be addressed?

As Wind noted in the above answers, using only a single study to draw any kind of conclusion seems not appropriate given the issues at stake.

Anyway the call back schemes (e.g. like the case studied by Analysys Mason in Singapore) is a real problem, not easy to avoid and could increase legal and regulatory costs. The remedies proposed by ERG (e.g. Commercial or legal agreement) are much more difficult if the domain is small and/or the call back scheme was provided by operators outside the domain. The fact that retail flat rate scheme could avoid the Call-back issues is probably not true, as a matter of fact in Singapore a retail flat rate scheme is adopted by operators (see

Figure 8).



Figure 8. Flat rate scheme of mobile operator M1 in Singapore (source:http://m1.com.sg/M1/site/M1Corp/)

While assuring the detection of the "real" terminating traffic could have an heavy impact both on the operators computing system and on the operators costs, taking into account that a kind of choice would implies, as ERG noted by itself, to an increasing of regulatory cost, voiding again one of the principles according to which ERG argued the BaK should be adopted.





Finally Wind believe that if a transition between CPNP and BaK will be implemented it should not be delayed and treated as a switch-off. As noted in the answers to ERG questions, the coexistence of CPNP and BaK charging schemes could imply an heavy increasing of costs due to the distortion phenomena and frauds that may occur, so as much as transition time is long the higher cost and uncertainty will suffer operators and end users.

Question 11 (Section 7):

Does the draft CP miss any other relevant issues??

For the Society writer, the ERG DRAFT Common Position of lacks about many relevant issues especially negative impacts on operators business, as highlighted in the Wind's answers above reported. In this way, Wind want to remark that:

Before entering in the analysis of the issues not treated by the ERG CP, Wind express its main relevant concern related to the scope of the CP. In the first section of the ERG CP the attention and relevance of BaK is referred to the need to evaluate whether such approach may be appropriate in managing complexities related to a forward looking multi services NGAN environment. Unfortunately this correct prospective and future looking approach is completely missed in the reaming part of the document where, without any reason and justification, BaK pros and cons are analysed only with respect to the legacy voice services and especially for mobile voice service. In Wind opinion BaK introduction should be further analysed and debated but only with respect to a forward looking **NGAN environment** since a move from CPNP to BaK for existing voice services seems unreasonable and unjustified.

Having said that, below the main areas not treated by the CP which, in Wind view, could be further assessed before moving to BaK for legacy voice services.

- The CP misses to analyse what would happen to interconnection links currently used between operators and who would suffer the costs for a new interconnection architecture. In this respect CP also misses to analyse competitive impacts in fixed markets where network scales and Pols are particularly different between ex monopolist and new entrants.
- 2. The CP misses to analyse how such a move would impact existing competitive dynamics and financial results of existing market players given that relevant differences exist among different market players in terms of market positioning, retail offers in place, network structure, geographic presence, market shares, financial structure, revenue stream composition among retail and wholesale services.
- 3. Arbitrage, fraud, re-routing, unsolicited calls, call back schemes, and all creative and naive inappropriate behaviours which would result by the introduction of a zero





payment system are by far under considered by the CP which fails to reflect the relevance of the consumer harm and economic impact.