



Digicel

Comments on comments received to ECTEL's proposed LRIC methodology

20 September 2016



We thank you for inviting Digicel to provide its comments on the draft Electronic Communications Bill. Digicel is of course available, and would be happy, to discuss our submission further.

The comments as provided herein are not exhaustive and Digicel's decision not to respond to any particular issue(s) raised in the draft Electronic Communications Bill or any particular issue(s) raised by any party relating to the subject matter generally does not necessarily represent agreement, in whole or in part nor does any position taken by Digicel in this document represent a waiver or concession of any sort of Digicel's rights in any way. Digicel expressly reserves all its rights in this matter generally.

Please do not hesitate to refer any questions or remarks that may arise as a result of these comments by Digicel to: -

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1.1 Introduction

This paper presents Digicel's comments to the comments received in response to ECTEL's consultation on its proposed modelling methodology for the calculation of fixed and mobile termination rates. In this paper, we focus on the comments provided by Flow. Our approach is to provide comments on Flow's responses to the following questions:

- Comments to the overall approach taken by flow
- Comments to Flow's response to question one
- Comments to Flow's response to question two
- Comments to Flow's response to question three
- Comments to Flow's response to question four
- Comments to Flow's response to question seven
- Comments to Flow's response to question eight
- Comments to Flow's response to question nine
- Comments to Flow's response to question eleven
- Comments to Flow's response to question thirteen
- Comments to Flow's response to questions fourteen, fifteen, and sixteen

We do not have comments to Flow's responses to other questions.

1.2 Comments to the overall approach taken by Flow

Flow argues in its introduction that it is best practice globally for fixed and mobile termination rates to converge. Digicel disagrees with this on a factual basis. Both fixed and mobile termination rates are often regulated, but they remain substantially different by typically an order of magnitude. This order-of-magnitude difference is directly and simply due to the significant and enduring difference in the costs for terminating minutes on fixed and mobile networks. There is the fundamental difference in the costing of traffic on fixed and mobile networks: the cost of mobile network traffic includes the mobile radio network, whereas fixed network traffic costing does not include the subscriber access lines. Flow does not consider this fundamental difference in its comments on fixed and mobile termination rates. This largely reduces the credibility of Flow's response as it is seeking to support a factually incorrect and distorted view that fixed and mobile termination rates should converge.



An EU benchmark for 2016 indicates that most countries have fixed termination rates which are 5-10 times lower than mobile termination rates. This is illustrated in Figure 1, which shows fixed termination rates as a proportion of mobile termination rates in EU countries as at January 2016 and Figure 2, which shows the same ratio as at January 2013. It can be seen that, overall, fixed termination rates have actually fallen *faster* than mobile termination rates, resulting in a divergence, rather than a convergence of rates.

Figure 1: Fixed termination rates as a percentage of mobile termination rates as at January 2016, EU benchmarks
[Source: BEREC, 2016]

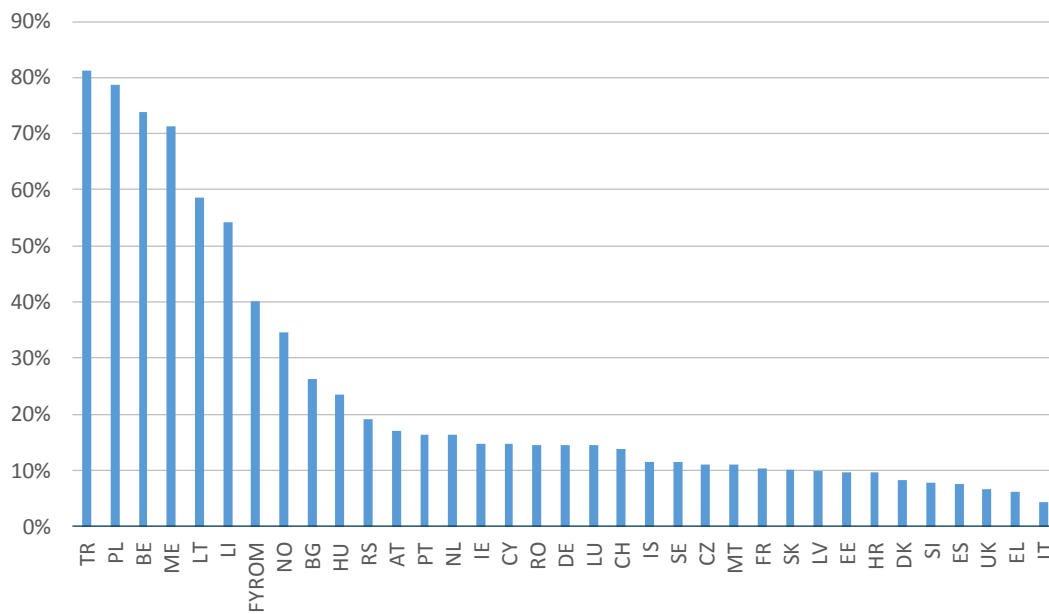
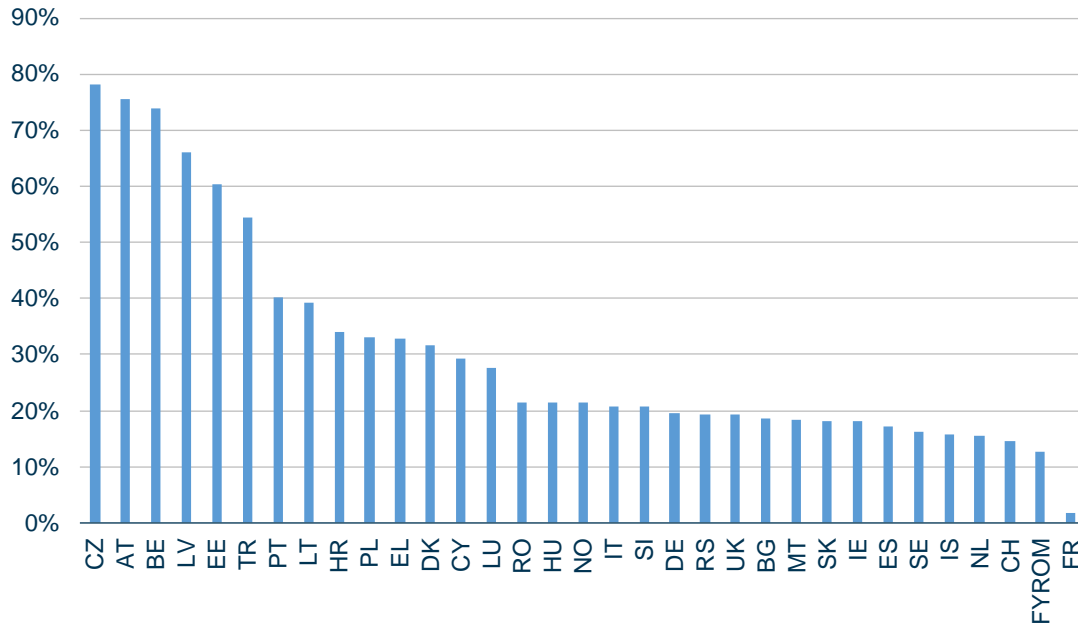




Figure 2: Fixed termination rates as a percentage of mobile termination rates as at January 2013, EU benchmarks
[Source: BEREC, 2013]



1.3 Comments to Flow's response to question one

Question one relates to the inclusion and calculation of capital and operating expenditure. Digicel disagrees with two of Flow's comments in answer to this question.

In paragraph 1.5, Flow argues that G&A costs must be set to adequately exclude retail costs. In our view, it's not possible to define "network only" G&A cost as no operator operates without a retail business. It is standard practice in this type of modelling to share all reasonably incurred efficient G&A costs between retail and network activities according to the indirect and common nature of those costs rather than to imagine a wholesale-only operator.

In paragraphs 1.6 and 1.7, Flow argues that it is only the access network that distinguishes between fixed and mobile networks, and that this should be grounds for the two to have the same WACC. This is not correct reasoning. The majority of network cost (especially in mobile networks) is in the access network, so this difference is great. Second, WACC (assuming equal levels of leverage) is about risk – the volatility of cash flows, not the cost of the network. Mobile businesses are inherently more risky than fixed as they have higher churn and more competitors than the fixed industry in which FLOW largely has an access network monopoly. Digicel does not



accept that the fixed retail business is as risky or more risky than mobile as argued in paragraph 1.7. Mobile businesses should therefore have a higher WACC and this is commonly the case in regulatory assessments. It is also common practice in most jurisdictions to acknowledge that fixed and mobile business should have a different WACC.

1.4 Comments to Flow's response to question two

Question two relates to ECTEL's proposed treatment of operational expenditure. Digicel would like to comment on one point made by Flow in response to this question.

In paragraph 2.2, Flow argues that G&A costs should be shared between fixed and mobile networks. We note that Digicel operates a mobile-only business; cost figures based on a combined fixed / mobile network operator should not be applied to a 33% market share mobile operator, as such an entity does not exist. It is also infeasible for 3 combined fixed / mobile operators to exist, since this would imply that there are three fixed networks per country to contribute to such sharing of G&A costs. ECTEL's consultants should be capable of interpreting mobile-only cost information and fixed-mobile cost information to ensure that within both the fixed termination rates and the mobile termination rates that there is:

- not double-recovery of costs by integrated operators
- not under-recovery of reasonably incurred, efficient overheads for mobile-only players.

Digicel believes there should be separate termination rates for mobile only operators (with no shared costs) and for fixed operators (with the correct assumption being that a fixed operator has a 100% fixed market share and is horizontally integrated with a 33% mobile operator).

1.5 Comments to Flow's response to question three

Question three relates to ECTEL's treatment of modern equivalent assets. Digicel cautions against Flow's argument in response to this question.

In paragraph 3.2, Flow argues that, whilst it agrees that Modern Equivalent Assets should be used, in the fixed network, legacy assets should be used with a migration approach. Flow makes this argument again in its response to question sixteen.

In Digicel's view, whilst this is a relevant consideration, it must be implemented very carefully. In the fixed core network, the migration from traditional technologies to an IP core is driven by the needs and strategic decisions of the fixed operator. It is not driven by optimized network



efficiency or by customer demand, as customers simply demand voice minutes irrespective of the core technology used to convey the core minutes between edge nodes. This contrasts with the migration between 2G, 3G, and 4G mobile technologies, which is driven by consumer choice and acceptance of handset technology (which is in turn driven by wealth and income). In Digicel's view, this means that, whilst it is appropriate to apply a migration approach to the fixed core, this migration must happen rapidly (i.e. in one to two years, not five to eight years which would be more appropriate for mobile technologies). This is because it would be efficient for a fixed operator to migrate its fixed core traffic from TDM/SDH to IP quickly once the decision is made. This efficient decision is especially the case for voice and internet traffic, which can most efficiently be carried on IP transmission links. The retention of legacy SDH equipment for traditional leased lines does not mean that voice traffic should also use a slowly migrating mix of SDH and IP transmission.

In paragraph 3.3, Flow argues that the use of an IP core in the fixed network is contradictory to the observation that a new entrant would purchase some wholesale network inputs. This argument is not valid. The new entrant would most likely buy access links, in many cases as passive inputs, as wholesale, not core inputs. There is no contradiction between these arguments. New entrants would also efficiently prefer and choose modern IP technology than deploy outdated legacy SDH equipment.

1.6 Comments to Flow's response to question four

Question four relates to the calculation of a tilted annuity in the model. Digicel disagrees with one aspect of the methodology presented by Flow.

The formula presented in paragraph 4.1 does not include the "planning horizon" in the calculation of depreciation. The formula assumes that an asset becomes productive and depreciation can begin the instance that capex is incurred. This does not reflect realistic network operation, whereby capex (capitalized planning, labor and hardware purchase) is typically incurred in a number of months before the asset becomes productive and commences depreciating economically. Digicel recommends that ECTEL's consultants implement a formula which can easily be adjusted to include a typical 0.5 year period for the time between expenditure and productivity.



1.7 Comments to Flow's response to question seven

Question seven relates to the suggested treatment of common costs in the model. Digicel disagrees with Flow's argument in response to this comment.

In paragraph 7.2, Flow argues that the Shapley-Shubik approach is most appropriate. Digicel disagrees. This approach can give highly distorted outcomes for different service costs depending on the way the bottom-up model dimensions the network for the different service increments and then assumes a Shapley-Shubik rule to allocate common costs. Digicel recommends a transparent allocation method which can be properly understood for both the fixed and mobile costing, such as EPMU or a properly justified capacity or consumption method.

1.8 Comments to Flow's response to question eight

Question eight relates to the use of the yearly approach to network optimization.

In paragraph 8.1, Flow states that it agrees with ECTEL's yearly approach. Digicel disagrees with this approach, as we stated in our previous response. We re-iterate our original arguments below. Flow does not consider these, or other, arguments in its submission.

In Digicel's view, the yearly approach is inappropriate and does not reflect the way efficient investment decisions are made in telecommunications networks. Decisions about efficient investments in these networks are made on a five- to eight- year cycle, matching the lifetimes of the relevant assets. Costs must therefore be recovered over this cycle. In a single-year approach, efficient assets that were built in one year could disappear completely the following year, especially in an environment where traffic is migrating from one technology to another, or where population patterns are shifting. The logical conclusion of the single year approach is therefore that the full cost of such an asset must be recovered in a single year.

In addition, assets built in previous years remain efficient over time. Customers do not replace their handsets every year as they typically cannot afford to. As such, many of them retain 2G handsets in the years after 3G has been deployed, or 3G handsets in the years after 4G has been deployed. Because of this, an efficient network deployment will retain assets of multiple technologies, built over several years, over time.

1.9 Comments to Flow's response to question nine

Question nine relates to the defined time period of the model.



In paragraph 9.2, Flow argues that new termination rates should be applied retrospectively from the beginning of 2017. We do not accept this as it is not best practice and will result in significant regulatory, legal and financial uncertainty for operators. This suggestion puts ECTEL's recommendations in legally uncharted waters. ECTEL's consultants will be able to verify that retrospective application of rates is not best practice.

1.10 Comments to Flow's response to question eleven

Question eleven relates to the proposed reference operator and its characteristics. Digicel disagrees with one of Flow's points in response to this argument.

In paragraph 11.3, Flow argues that the reference operator should have a compromise market share of 43.2%. This seems odd and is arbitrary as it mixes the regulations across separate jurisdictions. It is less accurate than using either 33% or 50%, and it disadvantages markets with three players. Digicel agrees with ECTEL's original recommendations to recognize a 3-player market situation.

1.11 Comments to Flow's response to question thirteen

Question thirteen relates to ECTEL's approach to mobile network modelling.

In paragraph 13.2, Flow state that ECTA has proposed a "modified scorched node" approach. In fact, ECTEL has proposed a "scorched earth" approach. We have provided our comments to this "scorched node" approach in our previous submission.

In paragraph 13.4 FLOW proposed a symmetrical migration for mobile and fixed technologies. Digicel disagrees with this approach because the reason for technology migration is very different in these two cases. Mobile handsets can access multiple network technologies, whereas fixed voice callers do not use multiple technologies and would economically prefer the fixed operator to use the most efficient core transmission technology (see above). In addition, there is also a substantial existing base of 2G only handsets in these markets. Customers retain these handsets for, amongst others, affordability reasons. It will take time for these customers to migrate to more advanced handsets. By contrast, the fixed core transmission migration can be executed regardless of the voice telephone type as modern MSANs offer analogue telephony in the access layer but with an IP aggregation port. Retaining fully depreciated legacy assets in a fixed core network is not a reason for setting regulated voice termination costs on the basis of old technology which can rapidly be replaced with modern IP switches and MSANs.



1.12 Comments to Flow's response to question fourteen, fifteen, and sixteen

Questions fourteen, fifteen, and sixteen relate to the modelling of fixed networks. In its responses to these questions, Flow makes a number of arguments that Digicel disagrees with.

In paragraph 14.2, Flow argues assuming a fixed operator with 100% market share is inconsistent in principle from the treatment of mobile operators, and is contrary to best practice of fixed and mobile termination rates converging. We disagree with both of these points. First, fixed operators in member states do have virtually 100% market share. There is no issue here of inconsistency, as ECTEL's proposed approach of reflecting the actual market structures is sensible and consistent with observed and efficient fixed markets. Second, as we demonstrated above, it is not best practice for fixed and mobile termination rates to converge.

In paragraph 14.4, Flow argues that, because HFC and copper networks have been separate up until 2016, it will be difficult to gather data to calibrate a model based on an assumed merged network. In our view, whilst it may be simpler to assume separate HFC and copper core networks, it would not be correct. The efficient network is clearly a single network, as evidenced by the fact that the networks are in fact merging. A model of an efficient network should therefore include a merged core. ECTEL's consultants should be capable of handling the gathered data to remove the duplicated and inefficient costs which arise from pre-merger separated networks, and to identify the network components associated with 'sweating' fully depreciated pre-merger assets which would not be efficient to re-deploy on an efficient forward-looking basis. Allowing the recovery of inefficiently incurred pre-merger costs rewards the delay of investment in core network integration. Investment in modern all-IP core network integration is the efficient decision to take now that the HFC and copper access customers are owned and managed by the same business.

ECTEL's consultants will be able to identify and explore the reference cases where post-merger situations have been modelled for the purposes of fixed and mobile termination, for example:

- the Dutch regulator assumed a single national cable operator, despite the fact that UPC and Ziggo were separate businesses. These two operators subsequently merged, demonstrating the efficient nature of the regulator's modelling assumption to assume a combined business
- the Swedish regulator modelled the costs of the three network joint ventures which support the four retail MNOs.



In paragraph 15.1, Flow states, without providing justification, that TV services should be excluded from the proposed increments. We disagree. TV services are accessed via the fixed core network, and use network elements within it. There is no justification for excluding them as TV traffic uses core network capacity regardless of whether it is analogue or digital TV. Core network equipment supports voice, data and TV traffic and the efficient forward looking network should include the relevant traffic volumes. The efficient fixed core network deployment is also driven by the total traffic load which includes both TV traffic and voice traffic. ECTEL's consultants will be well aware of the inclusion of TV traffic in the core of fixed voice cost models in other jurisdictions.

In its response to question 16, Flow makes arguments related to the use of Modern Equivalent Assets in the fixed core network, stating that a migration approach should be taken toward an IP core. We have presented our response to this issue in section 1.5 and will not reiterate them here.