An Coimisiún um
Rialáil Cumarsáide
Commission for
Communications Regulation

Information Notice

Operators correspondence on clarifications concerning the Access Network Model

Information Notice

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Commission for Communications Regulation
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Additional Information

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1. On 22 October 2020, ComReg published Consultation Document 20/101[1] ('**Consultation 20/101**') on Eircom's regulated wholesale fixed access charges which included proposed revised FTTC prices and CG Bitstream prices following updates made to the NGA Cost model. Responses to this Consultation are due on or before 5.30pm on 8 January 2021.[2]

2. ComReg has received from Vodafone and Sky a number of queries concerning the draft Access Network Model ('**ANM**') cost model,[3] which underpins ComReg Consultation 20/101.

3. Vodafone's queries and ComReg's responses are included in Appendix 1.

4. Sky requested assistance on restoring the draft ANM geospatial database extract included in the non-confidential ANM provided to Sky (and more generally to interested operators requesting access to these models and related documentation[4]) and requested a visual demonstration of the steps required to restore the database. A description of the methodology and data structure of the geospatial passive dimensioning module, including how to restore the database extract, was provided on page 2 of the document "ANM Geospatial Passive Dimensioning Module Database Extract Specification Document" (part of the draft ANM documentation). ComReg facilitated a demonstration of the steps required to restore the database extract, which was provided by ComReg's advisers Cartesian[5] to Sky's advisers. As part of this assistance ComReg also provided to Sky a set of database commands.[6] These commands (with comments) are included in Appendix 2.

5. In addition, following Sky's request for a copy of the non-confidential Revised CAM ComReg provided a copy of the non-confidential Revised CAM (Excel workbook, Microsoft Access database and documentation), that was made available to interested operators[7] at the time of ComReg Consultation Document 15/67.[8]

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[1] ComReg Document No 20/101, "Regulated Wholesale Fixed Access Charges - Review of the Access Network Model (ANM) and Specification of the Price Control for Public Switched Telephone Network - Wholesale Line Rental (PSTN WLR): Consultation and Draft Decision", dated 22 October 2020
[2] ComReg Information Notice 20/113. The original closing date of 4 December 2020 was extended to the 8 January 2021
[3] These queries from Vodafone and Sky were in addition to the previous queries referred to in ComReg IN 20/116 published on 4 Dec 2020
[4] See paragraph 5.2 of ComReg Document No 20/101
[5] See paragraph 1.16 of ComReg Document No 20/101
[6] These are referred to as *docker commands* and are used to restore the database
[7] ComReg IN 15/100
[8] ComReg Document No 15/67, "Eircom's Wholesale Access Services: Further specification and amendment of price control obligations in Market 4 and Market 5 and further specification of price control obligation in Market 2"

6. While there is no obligation on ComReg to provide (or publish) this correspondence, ComReg is publishing this information in the interests of transparency to all relevant stakeholders.

Appendix 1: Vodafone's correspondence

Pedro Fontes
Wholesale Pricing
Commission for Communications Regulation

8 Dec 2020

Re ANM model.

Dear Pedro,

Thank you for the information supplied in ComReg 20/116, clarifications on the ANM model.

Please see below some additional questions on the model . Answers to these should help us to more accurately assess the impact of changing assumptions in the model, for example if we are arguing that an alternative approach is appropriate.

Regards

Eamon Farrell

Questions

1) We asked ComReg about the appropriate settings for the inputs in the ANM which were described as "Input Parameter (for users to change at will)". These were the cells highlighted in yellow and surrounded by a solid black border.

We note that ComReg, in its response, provided clarification in relation to those inputs which appear within the Capex module. Whilst we acknowledge that some of the inputs in other modules are automatically updated from the Capex module (for example, the depreciation method used), this is not the case for all other inputs. For example, many of the inputs in the Service Demand module also described in this way do not appear within the Capex module.

We therefore have a follow-up question:

i. Is ComReg able to outline the appropriate setting for all the other inputs which do not feed from the Capex module? Where relevant, please explain where these settings vary by service.

2) In the ANM Capex dashboard, there is a switch which chooses between a bottom-up or top-down costing approach for each service. Slides 10-14 of the User Guide then explain that this setting feeds into the other modules (including the Pole and Duct Access Models) and in turn the setting of prices. However, we note that ComReg states that prices are set using a mix of BU-LRAIC+ for Non-reusable Assets and TD FAC for Reusable Assets (for example, see Paragraph 6.49 of the Consultation Document), which would include CEI costed in the Pole and Duct Access Models.

Given this:

i. Is ComReg able to explain how it has set the settings in the ANM to ensure this "mixed" bottom-up / top-down approach is implemented in the model? For example, was this achieved by manually overriding the link to the ANM Capex dashboard in some modules such as the PAM/DAM?

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Eamon Farrell
Vodafone Ireland

11 December 2020

Subject: Response to your letter of 8 December 2020 with request for clarifications on draft ANM

Dear Eamon,

We refer to your letter of 8 December 2020 with request for clarifications on the draft ANM. Please see below our response to your queries.

Best regards
Pedro Fontes

Query No.1 (i)

The other input parameters in the other ANM modules (other than the Capex module) are used in the same way as those other parameters (I.Par.7 to I.Par.29) in the Capex module: the values shown in the non-confidential draft ANM are the same as the confidential draft ANM used to set the prices in the ANM Consultation (except for those deemed confidential, which are randomised). These parameters remain unchanged irrespective of the selected 'model scenario' parameters in the Capex module.

To facilitate the review process, the draft PAM and DAM in the non-confidential draft ANM have been provided to stakeholders with each of the default settings corresponding to the parameter options that support the proposals set out in ComReg CEI consultation (ComReg 20/81). For example, I.Par.12 in the PAM is set in the Intervention Area with the 'per customer' approach (and the same for the commercial footprints, being the equivalent of the proposed LRIC approach) (we further refer you to the User Guide of the non-confidential ANM). I.Par.4 is set to 'prices' which allows the calculation of NBI's contribution to poles costs to be based on the CEI consultation prices (I.Par.5 NBI MIP Prices).

Query No.2 (i)

For the capital costs of poles and ducts the implementation of the proposed mixed valuation approach for reusable assets and non-reusable assets is performed, respectively, in the PAM and DAM. The capital cost annuities will therefore reflect for each year the combination of reusable assets which have been valued on a Top HCA basis (as of end of financial year 2019) and those assets which have been valued on Bottom-up basis, based on current replacement costs and a level of expected

replacement required to make the CEI network fully NGA-ready, for the subsequent years. This valuation is independent of parameter I.Par.3 (Valuation and Depreciation Method) in the Capex module, i.e. I.Par.3 will only determine how the capital values determined in the PAM and DAM are depreciated to derive the cost of pole and duct access services and more generally the cost of downstream wholesale services such as PSTN-WLR and LLU. For the costs of the remaining network elements (e.g. copper cable), I.Par.3 in the Capex module sets out both the valuation methodology and the depreciation method.

For example, PSTN-WLR services are costed based on the “Top-Down HCA” Valuation and Depreciation Method, so copper cables are valued based on Top-Down HCA costs, poles and ducts are valued as above, and together these capital costs are depreciated based on a straight-line depreciation method. In addition, operating costs and the distribution of active lines across exchange areas are based more closely on Eircom’s actual costs and exchange line volume data.

Other services are costed using the “Bottom-up Tilted Annuity” Valuation and Depreciation Method. For example, to derive the costs for LLU services, copper cables are valued based on a bottom-up basis, using current replacement costs, poles and ducts are valued as above, and together these capital costs are amortised using a tilted annuity method. In addition, while operating costs include additional adjustments to recognise the lower operating costs that are consistent with a recently deployed coper network when compared with Eircom’s legacy network.

Appendix 2: Sky's correspondence

(Docker) commands (generally in the order that would be written):

1. docker swarm init

    a. Initialises the swarm orchestrator (doesn't need to be run every time)

    b. If you want to remove the swarm (sometimes they can become broken), type docker swarm leave --force

2. docker stack deploy -c docker-compose.dev.yaml anm

    a. Deploys the stack in the YAML file, name is anm here, but can be anything

3. To investigate if the stack has deployed properly use docker stack ps anm

    a. This will tell you if the stack is up properly. If it's broken, you can remove it with docker stack rm anm

    b. Broadly speaking, the commands are the same as other docker commands (docker container ls …, etc.)

4. Once the stack is up and running you can run docker exec -it $(docker container ls -q --filter name=analytics) /bin/sh -c "/bin/bash"

    a. This command opens a bash prompt on the container called "analytics"

5. Once you are in the container, put the .dump file in any of the locations mapped on your local drive, and navigate to the mapped location on the container, e.g. cd /home/app/backup/

    a. Remember that the mappings are "local directory path:container directory path" and you need to have these prepared before you deploy the stack

6. Run the command from the docs cat *.dump | gzip -d | psql

    a. This will load the file into the database and will take a couple of minutes (as we saw on the call)

7. To export outputs to the results path you can enter into the PostgreSQL prompt using psql as normal, and then use the \copy command to write

a. For example, \copy (SELECT 1, 2, 3) TO ‘/home/app/results/test2.csv’ WITH CSV HEADER DELIMITER ‘,’;