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March 20, 2014

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Consultation note regarding first draft of the fixed LRAIC model

DBA started the consultation on the first version of the draft model the 20th of December 2013. DBA had received consultation responses from TDC regarding the leased lines files.

Comments on the leased line files

Contention ratio calibration
TDC states that DBA has informed TDC that that the peak hour figure used for the calculation of the contention ratio comes from a power point presentation given by TDC during summer 2013. The graphs used in this presentation are not intended for such a use, and DBA has for the purpose of calculating the contention ratio in sheet 'Parameters' used a value of XX Gbps. This value apparently comes from the graphs, where the services however have been double-counted.

Since the input value in 'Parameter' is used to calculate the 'IP vi Fibre' service contention ratio, TDC suggest to use the figure of XX BH Gbps (Core model, 'A6_I_Product_Demand', Cell J109+J110) that is used in the current model and that TDC yearly has provided input for.

DBA has asked TDC several questions on the busy hour traffic in order to better understand TDC's network busy hour traffic. However the answers provided by TDC do not allow DBA to be confident that all the traffic has been taken into account in the model:

- Given the updates made to calculation of the VOD, the Ethernet transport and the leased lines services, the busy hour traffic modelled accounts for 494 Gbps (without the multicast traffic);

- The figures provided by TDC show that the total network busy hour traffic should be XX Gbps (figure from the slideshow "IP traffic pr service.pptx") minus XX Gbps due to multicast (figure from TDC additional input) minus some traffic not entering the Danish core network.

The total network busy hour traffic of TDC is therefore XX Gbps minus the international traffic. The total network busy hour traffic remains therefore above the traffic computed in the model.

TDC is therefore asked to provide the international traffic not entering the Danish core network.

TDC should also explain why such a gap remains between its network busy hour and the traffic included in the model.

DBA would like to point out that the total traffic in the network is a major input to the cost models. It is therefore very important that DBA is confident that the traffic figures provided by TDC reflect TDC's network traffic.

As DBA is not confident that the all traffic that should be included in the model is included in the model, DBA will use the option named "Traffic recalibration" in the dashboard. This option allows to match the traffic included in the model the TDC's network busy hour traffic by changing the leased lines traffic.

Contention ratio for 'IP via LL'

TDC states that the calculated contention ration of IP via Fibre is also used to calculate the contention ratio for IP via LL. However, these services have a much lower traffic usage than 'IP via Fibre'. TDC suggests using a separate contention ratio for these lines using the corresponding information in the present core model, sheet 'A6_I_Product_Demand', Cell J112. This can be done without major addition to the calculation and will improve the accuracy of the consumption.

DBA agrees that a separate contention ratio could be used for the 'IP via LL' service instead of using the 'IP via Fibre' contention ratio.

However, DBA will use the same contention ratio as TDC does not explain why the leased line traffic provided by TDC during the data collection is not suitable. Furthermore, given the actual figures, the approach suggested by TDC would lead to a contention ratio just above 0% which seems unrealistic.

DBA will therefore not change its current approach.

Total capacity for contention calculation

TDC states that in 'Parameters' a total capacity of XX Gbps is calculated by summing the capacity on the Edge layer. However, the physical ports of IP via Fibre is located on the aggregation layer and the BH capacity provided to DBA is measured on the aggregation layer, therefore it is more correct to use the total capacity on the aggregation layer when calculating the contention ration.

TDC requests that the equation in 'IP via fibre - ID extraction' column L uses Aggregation capacity as input instead of Edge capacity (sourced from column I instead of J in 'SDH traffic propagation'.

DBA agrees with TDC that the formula should be updated as the traffic provided by TDC has been measured at the aggregation layer.

DBA will update the leased line model to use the capacity at the aggregation layer instead of the edge layer.

Network volumes
TDC has found that the number of active fibre LL (Access model, sheet: Interface with core model, cell: L92 has been calculated incorrect. The number XX is a sum of 6 sub element:

- SDH LL larger than 2 mbit/s and lower than 1 Gb/s,
- SDH LL larger than 1 GB/s
- IP via fibre larger than 2 mbit/s and lower than 1 Gb/s,
- Ip via fibre larger than 1 GB/s
- IP via LL larger than 2 mbit/s and lower than 1 Gb/s,
- IP via LL larger than 1 GB/s

Regarding the SDH based, TDC has identified the following errors.

1. Some lines are OAO's lines going from one co-location to another, with utilizing the BTO fibre network
2. Some lines are lines "extension lines" from sparse area to the legacy DATA platforms (IP, ATM), such line should count as only one

Regarding the Fibre via LL, TDC has identified several errors:

3. The line should not be multiplied by two in the LL file, sheet: IP via LL, column Y and Z, since these lines are not point to point Leased Line in traditional context, but accesses toward the IP network. Each line should count as only one.
4. All the lines, regardless of capacity are considered to be carried on fibre on the access part. This is not the fact since many of the lines are <= 2 Mbit/s. These will be carried on copper, and should count as fibre lines.
5. Some of the IP via LL are already counted in the SDH file, since they have an "extension" on SDH towards the origin.

Regarding the IP via Fibre the following error has been identified:

1. The line should not be multiplied by 2 since they are all accesses to the IP network, and not point to point in traditional context.

The number of fibre leased lines is XX. However given the changes requested by TDC (point number 3 and second point number 1), the number of fibre leased lines has decreased to XX.

TDC should identify which SDH leased line is an extension line.

DBA will update the model regarding the number of IP via LL.

In the access model, some leased lines are carried on copper and some are carried on fibre.

TDC should identify which IP via LL are already counted in the SDH file.

DBA will update the model regarding the number of IP via fibre.