

Data Request Responses Relied Upon in Tucek's Surrebuttal Testimony

The following data request responses have been relied upon in the surrebuttal testimony of David G. Tucek:

- (1) JZ 1.1
- (2) JZ 6.1 (Response is confidential. See Surrebuttal Attachment DGT-6.)
- (3) VZ-STAFF 4.06
- (4) VZ-STAFF 4.08
- (5) VZ-STAFF 4.09
- (6) IRCA 5.04(b)
- (7) VZ-STAFF 1.04
- (8) VZ-STAFF 4.11
- (9) VZ-IRCA 2.01
- (10) VZ-IRCA 2.02

JZ1.1

Request:

On page 1 of 3 of Attachment TD-5 to the testimony of Terry R. Dye, Verizon presents a LRSIC estimate for Shared Trunk Port that is reported as a Per MOU charge.

- A. Do the costs to Verizon of a single trunk port for, for example a DS1 port, vary with the number of minutes flowing through the trunk port?
- B. Are such costs estimated as usage-sensitive costs in order to apportion them among Verizon's customers (where Verizon's customers include those interexchange carriers purchasing Verizon's switched access services)?
- C. If costs are estimated as usage-sensitive costs in order to apportion them among users then please indicate what level of usage was employed to calculate the rate for this service.
- D. If costs are estimated as usage-sensitive costs in order to apportion them among users then please explain how the usage level reported above was determined?
- E. If costs are estimated as usage-sensitive costs in order to apportion them among users, then please explain how the cost estimates account for possible fluctuations in usage. In particular please explain how the model as it is used to produce the estimates reported in Mr. Dye's attachment accounts for growth in usage.
- F. If costs are estimated as usage-sensitive costs in order to apportion them among users please identify the time period for which these cost estimates are applicable.
- G. If costs are estimated as usage-sensitive costs in order to apportion them among users please identify the frequency with which these estimates will need to be updated in order to ensure that usage-sensitive apportionments when combined with usage of these ports reflects the flat rated cost of such ports.

Response:

- A. The costs of a single trunk port does not vary with the number of minutes flowing through the port. However, the total number of trunk ports required by a switch is determined by the load offered to the switch. Consequently, in the aggregate, trunk port costs are usage-sensitive.
- B. Trunk port costs are not estimated as usage sensitive costs in order to apportion them among Verizon's customers. Trunk port costs are expressed on a per-minute basis to reflect the fact that the costs of the ports in aggregate are usage sensitive. See the response to JZ 1.1, Part A.

Response to JZ 1.1 continued:

C. See the response to JZ 1.1, Part B.

D. See the response to JZ 1.1, Part B.

E. See the response to JZ 1.1, Part B.

F. See the response to JZ 1.1, Part B.

G. See the response to JZ 1.1, Part B.

JZ 6.1

Request:

In his rebuttal testimony, with regard to development of switch cost inputs, Mr. Tucek states at lines 848-851 "...the application of the contract and the development of the quotes are based not only on the total number of equipped lines, but also on such information as the number of trunks, usage per line, and usage per trunk." Please provide inputs sheets, worksheets or other materials supplied by Verizon to those switch vendors that have supplied the switch cost quotes filed by Verizon in response to Staff Data Request JZ 1.1-1.15. In addition, please supply any other materials that would support the notion that vendor quotes are derived from wire-center specific usage information.

Response:

The response to Staff data request JZ 6.1 contains Verizon and vendor confidential information. The initial response was filed on 02/15/2002, and a supplemental response was filed on 04/13/2002. The responsive documents are contained in Surrebuttal Attachment DGT-6.

VZ-STAFF 4.06

Request:

With respect to Mr. Zolnierек's rebuttal testimony at lines 509 through 511, please state whether the determination of the unknown relationships between variables extends to the functional form of the relationship or only to estimates of unknown parameters. If the determination of the relationships extends to the functional form, please explain how Mr. Zolnierек would determine the correct functional form.

Response:

Mathematical statistics and econometric theory, including regression analysis, are generally used to determine the relationships between variables when those relationships are unknown. Such techniques can be used to address circumstances when both the functional form of a relationship and various parameters that, along with the functional form, define the relationships are unknown. Mathematics for Economists, (Simon, Carl P., and Blume, Lawrence, W.W. Norton & Company, New York, 1994, at 273) contains the following definition: "A function from a set A to a set B is a rule that assigns to each object in A, one and only one object in B." In the relationship being examined in lines 509-511, set B is the set of costs Verizon pays vendors for switches. Set A is the set of combinations of line counts and switch types. Verizon's Vendor documentation suggests that Vendors assess Verizon a switch cost for each combination of line counts and switch type, and that this vendor price does not vary by usage between switches of the same type with the same line counts. Therefore, Verizon has produced an explicit function or rule that assigns a switch cost for each combination of line counts and switch types of interest in this proceeding. The function (or rule of assignment) in this case is discreet. Through sophisticated analysis, one might (or might not) be able to generate a functional form and parameters that produce a continuous function that produces results that mirror the discreet function. However, this exercise is unnecessary and highly prone to error. The function addressed in Mr. Zolnierек's testimony at lines 509-511 is known. Therefore, Mr. Zolnierек would not attempt to determine a functional form using regression analysis.

VZ-STAFF 4.08

Request:

With respect to Mr. Zolnierек's rebuttal testimony at lines 509 through 524, please state with a categorical "Yes" or "No" whether Mr. Zolnierек has attempted to test the regression equations relied on by Mr. Tucek for specification error resulting from use of a functional form that differs from the actual function. If the answer is "Yes", please explain what test was performed and what the results were. In addition, please provide all of the underlying work papers and calculations associated with this test. Please provide these work papers and calculations in hard copy and electronic spreadsheet form for each and every test that was performed.

Response:

No.

VZ-STAFF 4.09

Request:

With respect to Mr. Zolnierек's rebuttal testimony at lines 509 through 524, please state with a categorical "Yes" or "No" whether Mr. Zolnierек has attempted to estimate any regression equations relating switching costs, either in total or on a per-line basis, to any other variables. If the answer is "Yes", please provide all of the underlying work papers and results for each and every regression that was estimated. Please provide these work papers and calculations in hard copy and electronic spreadsheet form.

Response:

No.

IRCA 5.04(b)

Request:

Please explain how “selecting ICM’s 18kft option” allows Verizon to “mirror the population from which the sampled loops were drawn” when “none of the sample wire centers had an average loop length greater than 12,000 feet.” (Tucek Rebuttal page 10, lines 222-226 and lines 206-208).

Response:

The fact that none of the offices had an average loop length greater than 12,000 feet does not mean that loops greater than 12,000 feet did not exist in the office. Selecting ICM’s 18kf option produces a network in which copper loops in excess of 12kf and not served by DLCs exist. This mirrors the population from which the sampled loops were drawn to the greatest extent possible.

VZ-STAFF 1.04

Request:

With respect to Mr. Koch's direct testimony at page 12, lines 261 through 263, please define and explain what Mr. Koch believes constitutes a traditional loop carrier. Include in this explanation examples of such traditional loop carriers and a discussion comparing the capabilities of traditional loop carriers with those of next generation digital loop carriers.

Response:

A traditional digital loop carrier is a piece of network equipment used to pair gain on local loops. These devices provide multiplexing and demultiplexing of multiple channels over one circuit. An example of a traditional digital loop carrier is a SLC-96, which functions as a remote concentrator that allows 96 voice grade loops to be serviced over a single four-wire digital circuit.

A next generation digital loop carrier has the capability to support a hybrid fiber/copper network and provide both voice and data services. An NGDLC can be configured to split voice and data signals off of a single copper pair at the remote terminal and allow for digital subscriber line services, while a traditional DLC cannot.

VZ-STAFF 4.11

Request:

With respect to Ms. Marshall's rebuttal testimony at lines 56 and 57, please explain the basis for Ms. Marshall's statement that "[c]arrying costs calculated in this manner significantly exceed the actual carrying costs incurred by Verizon." In particular, explain the quantitative basis for the characterization that the calculated carrying costs "significantly" exceed the actual carrying costs.

Response:

The basis for Ms. Marshall's statement is that the 1999 13 month average reproduction costs of the 21xx plant accounts (Approx. \$342 million) significantly exceed the 1999 13 month average ARMIS amount of these accounts (Approx. \$221 million). Carrying costs based on reproduction costs can be expected to exceed actual carrying cost by the same ratio. Ms. Marshall believes that this difference is significant. 21xx plant account balances appear on Verizon Rebuttal Attachment DGT-1.

VZ-IRCA 2.01

Request:

With respect to Mr. Hendricks' rebuttal testimony at lines 300-305, describe in detail what Mr. Hendricks believes to be a "properly conducted methodology" for conducting a sample of loop lengths. In this description, please specify whether all or a subset of Verizon's wire centers are to be sampled, and how the number of loops to be sampled in each wire center is to be determined to insure a specified level of confidence. If only a subset of wire centers is to be sampled, please specify how the subset is to be selected to insure a specified level of confidence. Additionally, please specify exactly what information would be collected for each sampled loop.

Response:

Mr. Hendricks believes that a properly conducted methodology for sampling loop lengths would require that only a subset of wire centers be sampled, using a statistically valid sample. Although Mr. Hendricks does not purport to define all of the elements of a "statistically valid sample," it is his expectation that such a sample would ensure the proper representation of:

- Urban wire centers
- Rural wire centers
- Small-wire centers
- Medium-sized wire centers
- Large-wire centers
- Geographically distinctive wire centers i.e., North South, East and West

- Business lines
- Residential lines
- In-town lines
- Out-of-town lines
- Loops served by DLCs
- Loops not served by DLCs

It is Mr. Hendricks' understanding that Verizon possesses aggregate numbers for each of the items above. Thus, Verizon has sufficient understanding of the loop population. Verizon can, therefore, ensure a specified level of confidence by using sound statistical sampling techniques and ensuring that each of the items in the list above are obtained in a manner representative of the loop population. The information collected from each sample should include, at a minimum, the loop length, whether it is copper loop, fiber loop, or some combination thereof, and information relevant to the list above.

VZ-IRCA 2.02

Request:

With respect to Mr. Hendricks' rebuttal testimony at lines 322-333, please specify how the results of the loop length studies recommended by Mr. Hendricks can be used as a "substitute for the information in the Loop Demand Table in ICM." In particular, explain how the information collected in the loop length studies would be used to populate each of the 196,521 records in the ILDEMAND.db table.

Response:

It is Mr. Hendricks' understanding that the development of loop lengths in ICM are based on the road feet data contained in the Loop Demand Table in ICM. In this table, there are many entries for each wire center CLLI code based on X-Y coordinates, where 1,2 or a handful of lines contain road feet data used to develop loop length assumptions customers. Mr. Hendricks' proposed modifications to the Loop Demand Table would be to replace the CLLI code records with the results of the survey, whereby road feet data would be replaced with loop length estimates for each sampled wire center CLLI code developed from the results of the loop sample. Because fewer CLLI codes would be used (since Mr. Hendricks proposes a sample rather than a population study) and because it may no longer be appropriate to provide a breakdown by X-Y coordinates, Mr. Hendricks expects that there would be fewer than 196,521 records in a Loop Demand Table modified to meet his proposal.