Data Request Responses Relied Upon in Tucek's Rebuttal Testimony

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

(1) ATT 013
(2) IRCA 3.17
(3) JZ 1.5
(4) JZ 1.6
(5) JZ 3.3
(6) JZ 4.4
(7) JZ 5.11
(8) MAH 1.04
(9) VZ-ATT 1.01
(10) VZ-ATT 2.02
(11) VZ-ATT 2.04
(12) VZ-ATT 2.05
(13) VZ-IRCA 1.01
(14) VZ-STAFF 1.04
(15) VZ-STAFF 1.11
(16) VZ-STAFF 1.17
(17) VZ-STAFF 1.18
(18) VZ-STAFF 1.19
(19) VZ-STAFF 1.20
(20) VZ-STAFF 1.21

ATT013

Request:

Please provide all electronic workpapers in their original form (e.g., Microsoft Excel spreadsheets with formula intact) that make up the PDF files produced on CD2. In particular, provide the underlying worksheets that make up the following PDF files: "SCIS Costmod Disc Dev.pdf," "IL Discount.pdf" and "iaf.pdf."

Response:

Verizon objects to this data request on the grounds that it is voluminous and burdensome. There are 467 PDF files contained on the referenced CD, with only three specified by name in the request. Many of these files are either scans of hardcopy reports generated by internal Verizon systems such as GTEAMS, or were generated in their electronic form originally as PDF files. Other files are nothing more than PDF Versions of Microsoft Word documents. There are no electronic versions of such files that contain the formulas (or any other additional useful information) specified by the request. Notwithstanding this objection, Verizon is providing the EXCEL spreadsheets underlying the three named PDFs. See files ATT013 jz1_6b1.xls and ATT013 jz1_6b2.xls.

IRCA 3.17

Request:

IRCA 3.17 Please clarify the discussion on drop wires and entrance cables contained on page 14 of the Loop Module in the ICM Model Methodology document of the following points:

a. Assume that there are 499 residences units in a demand unit. Does ICM assume placement of a drop wire (3 or 5 pair) to every one of the 499 residence units? If not, how many drops are assumed to be placed and by what methodology are the drop wires assumed to be placed?

b. Assume that there are 501 residence units in a demand unit. Does ICM assume placement of a 25 pair entrance cable to every one of the 501 residence units? If not, how many 25 pair cable entrance cables assumed to be placed, and by what methodology are the entrance cables assumed to be placed?

c. Is the number of pairs in a drop wire a user-adjustable input? If so, please identify all of the options available to a user as far as the number of pairs that can be chosen?
d. Is the number of pairs in an entrance cable a user-adjustable input? If so, please identify all of the options available to a user as far as the number of pairs that can be chosen?

e. How many demand units, as modeled for Verizon's Illinois network, include 500 or more residential units?

f. How many demand units, in total, are modeled for Verizon's Illinois network?

Response:

Note that the number of residential and business units in each demand unit is calculated by ICM using the number of residential and business lines in the grid, and the values input for "Lines/Res" and "Lines/Bus" on the run times options screen for outside plant distribution.

a. ICM would assume a drop to each residential unit.

Response to IRCA 3.17 continued:

b. ICM does not assume an entrance cable to every residential unit in this case. Once the residential units reach a threshold value of 500, ICM calculates the number of entrance cables in this situation by dividing the number of residential units by one half of the size of the entrance cable. ICM assumes that the entrance cable is a buried facility.

c. Yes. The user can choose between a 3- or 5-pair drop from the run time options screen. A change in drop size can also be accomplished by changing the input price either the 3- or 5-pair drop. For example, a 2-pair drop can be modeled by placing the appropriate input prices in the field for a 5-pair drop and selecting 5-pair from the run time options screen.

d. The number of pairs in an entrance cable is user adjustable and is input on the run times options screen for distribution cable. Note that the entries should correspond to valid cable sizes.

e. 6 (includes only retained exchanges)

f. 94,907 (includes only retained exchanges)

JZ 1.5

Request:

On page 4 of the testimony of David G. Tucek, Mr. Tucek notes that Verizon ran its model as if the sale of certain Verizon wire centers in Illinois had not taken place. Then, in order to reflect the sale of these wire centers, excluded them from the calculation of statewide averages and from the calculations of deaveraged costs by zone.

A. Please explain how Verizon's cost studies would change if Verizon had excluded these exchanges from the model runs initially, rather than backing out the results after the run.

B. Please explain how shared and common costs were adjusted to reflect these sales and what assumptions were made regarding shared and common cost savings resulting from the sales.

Response:

A. It is not possible to make the change contemplated by this question because total ARMIS operating expenses for just the surviving wire centers are not known. Consequently, it is not possible to quantify how the cost studies would change.

B. Within ICM, the costs of general support assets (accounts 2111 through 2124) are designated as shared costs. These costs are excluded from the statewide averages along with the exclusion of the other costs identified for the sold wire centers. No adjustment has been made to adjust the level of common costs for the sale of these wire centers.

JZ 1.6

Request:

At page 17 of the testimony of David G. Tucek, Mr. Tucek states "Costs are based on the current prices Verizon pays for initial switch placement and expansions."

A. Please provide documentation that would indicate the current prices Verizon pays for initial switch placement and expansions.

B. Provide all detail necessary to verify Verizon's calculations including detail on how Verizon calculated costs from these documents. Include all intermediate calculations.

Response:

A. The requested information can be found on the proprietary CD-ROM filed by the Company on December 20, 2000. The file name and directory path is:

\ILLINOIS CD 2\SUPPORTING DOCUMENTATION\Switch Module\Sources\Investment Adjustment Factor\Vendor Quotes\Vendor.pdf

B. The vendor quotes for initial switch placements are used to calculate discount factors which are inputs to the SCIS and CostMod programs.

The Excel file JZ1_6b1.xls is attached to detail the calculations used to develop the discount factors.

The vendor quotes for initial switch placement and expansions were also used in developing the Investment Adjustment Factor input to ICM. The Excel file JZ1_6b2.xls is attached to detail the calculations of the Investment Adjustment Factor. Please refer to the following file on the proprietary CD-ROM for an explanation of the Investment Adjustment Factor:

\ILLINOIS CD 2\SUPPORTING DOCUMENTATION\Switch Module\Sources\Investment Adjustment Factor\IAF Overview.pdf.

Please refer to the following file on the proprietary CD-ROM for an explanation of how the Investment Adjustment Factor is used to the switch investment calculations:

\ILLINOIS CD 2\SUPPORTING DOCUMENTATION\Switch Module\Algorithms\swalgo.pdf

JZ 3.3

Request:

On page 19 of the direct testimony of Verizon Witness Tucek, Mr. Tucek indicates that a major assumption underlying ICM is that: "the modeled network is designed to meet the transmission parameters required for both voice grade services as well as services requiring transmission speeds up to 6 mbps…"

A. Please explain what components of the network modeled would be capable of transmission speeds up to 6 mbps.

B. Please explain what components of the network modeled would be not be capable of transmission speeds up to 6 mbps.

C. Please explain how Verizon arrived at the figure of 6 mbps.

D. Please explain whether the network components modeled by Verizon have transmission capabilities exceeding that of Verizon's existing network components. If a component of the model has transmission capability that exceeds the existing transmission capability of this component for some of Verizon's exchanges, but falls short of the transmission capability of this component for other Verizon exchanges then provide estimates of both the percentage of such components in Verizon's current network that have transmission capability that falls short of the transmission capability modeled in the ICM and those that have components in Verizon's current network that have transmission capability that exceeds the transmission capability modeled in the ICM.

Response:

A. The cited testimony is referring to the local loop facility modeled by ICM. Specifically, the copper loop portion of this facility in the modeled network is capable of transmission speeds of 6.14 mpbs if that signal speed is applied. However, it must be noted that UNE costs in the ICM do not include the cost of the equipment required to generate and apply a signal of that speed to the loop. Additionally, loops falling in the grids (no more than 2 percent of the total grids) that do not meet the 12-kilofoot copper loop length restriction will not have this capability.

B. See the response to part A.

Response to JZ 3.3 continued:

C. The network modeled by ICM was selected to have the capability of providing advanced services requiring the transmission speed of the most commonly deployed form of xDSL. The FCC's March 31, 1999 order in the Advanced Services docket (CC Docket No. 98-147), adopts the term "xDSL" as the label for advanced service technologies and identifies ADSL as the most commonly deployed of these technologies. (Order at Par. 10, footnote 10). ADSL subscribers generally experience downstream transmission speeds from 1.54 to 6.14 Mbps.

D. The transmission capability of individual loops in the existing network depends on a number of factors including the presence or absence of load coils, length, and cable gauge. It is not possible to estimate the proportion of loops in Verizon's existing network that exceed or fall short of the modeled transmission capability without completing an extensive loop makeup analysis.

JZ 4.4

Request:

JZ 4.4 - In the ICM Release 4.2 Model Methodology Switch Module (Book III of VII) Manual on page 9, the text indicates that each switch was modeled through SCIS or CostMod to produce unique investments for each CLLI based on site specific data. Please select the most recent switch, matching one of the four basic types of switches used by the ICM, purchased and installed in Illinois. For this switch:

A. Indicate when the switch was purchased.

B. Indicate how much in total Verizon actually paid for the switch. Do not report the SCIS or CostMod estimate of the price paid. Do not include EF&I, power, test, or investment adjustment factors. Only include the price paid at time of purchase for materials and labor that match those materials and labor that SCIS and CostMod are designed to estimate.

C. Using the inputs that were entered into the SCIS or CostMod model to aggregate, please indicate what the total estimated cost produced by SCIS or CostMod is for that switch. Please include calculations that demonstrate how the cost components produced by the SCIS or CostMod models were aggregated to produce the total switch cost.

D. Indicate why the actual price paid and the estimate produced by the SCIS or CostMod differ, if they do. Please provide a detailed explanation giving differences in demand assumptions where necessary and explaining differences between actual practice and SCIS model assumptions that explain the cost differences reported above.

E. Repeat the exercise above (answering questions A-D) for another switch of your choice if you believe that another switch purchase would prove a better vehicle to explain the SCIS and CostMod estimation approaches.

Response:

A. Verizon most recently purchased a DMS-10 End Office, CLLI code GLCNILXEDS0, for Illinois in 1998.

B. Verizon paid the vendor, excluding RTU fees, $120,473.00 for this switch.

Response to JZ 4.4 continued:

C. The estimate produced by SCIS for this switch can be seen in ILSWINVx.db parameter L0001. The total investment is $214,984.

The investment produced by SCIS and the amount reported in Part B differ because the amount reported in Part B does not include RTU fees which would have been included as an expense item in 1998. The RTU fees were included in SCIS because beginning with January 1999 RTU fees were capitalized to account 2690 instead of to an expense account. Also, an average discount was used as an input to SCIS rather than a site-specific discount as would have been used for the amount actually paid.

D. Verizon does not believe this exercise can be used to explain the SCIS and CostMod estimation approaches. Consequently, there is no other switch choice for this exercise that would provide a better explanation.

See Attachment B for a more detailed analysis.

JZ 5.11

Request:

Staff requests that Verizon run its model with alternative switch cost inputs. However, Staff is uncertain as to whether the model permits such flexibility. Therefore, Staff requests Verizon to perform the "run." Please run the ICM assuming that switch costs are equal to those costs employed by the FCC in their high-cost universal service model. That is conduct a run of the model making the following assumptions:

- The cost for a remote switch equals $161,800 plus $87 dollars per working line.

- The cost for a host switch equals $486,700 plus $87 dollars per working line.

- Adjust the Composite Factors such that the investment adjustment factor designed to accommodate vendor discounts and the melding of new and additions pricing does not discount the switch cost investments above.

- Adjust the Composite Factors such that no additional investments are added for the (1) the cost associated with purchasing and installing the main distribution frame (MDF); (2) the cost associated with purchasing and installing power equipment; (3) the cost of connecting each remote switch to its respective host switch; and (4) LEC engineering costs since all four of these elements are included in the FCC investment figures.

Please make any other assumptions necessary to make this "run" possible. Outline all assumptions in your response. As indicated above, Staff is unclear whether the model has the flexibility to permit such basic changes to switch costs. In conducting this exercise, please provide as much information as possible that illustrates how such a "run" can be done. That is provide information that would illustrate how such a "run" could be conducted by non-Verizon users of the ICM. As output of the run, please provide switched access costs in the format used in Attachment TD-5 to the testimony of Terry R. Dye.

Response:

Please see the CD labeled "Response to JZ 5.11". Note that the information contained on this CD is confidential.

MAH 1.04

Request:

Please recalculate Direct Attachment TD-5 based upon the following method: when computing LRSIC with the ICM model, please run the model with the option of not including shared costs in the LRSIC. Put that value into column a. Multiply that value by 28.86% and enter that result in column b. Sum columns a and b and enter that result into column c.

Response:

Objection. This request does not call for information that is discoverable or otherwise proper for the data request discovery process, and such information is equally available to the Staff. Although Verizon is not legally obligated to perform this calculation, and without waiving any rights with respect to this objection, Verizon agrees to perform this calculation. Verizon should be able to provide the calculation in approximately three weeks.

VZ-ATT 1.01

REQUEST:

With respect to Mr. Boyles' direct testimony at page 22, lines 3 and 4, please identify and provide all of the underlying work papers and calculations used to create the modified.3 investment adjustment factors described by Mr. Boyles. Please provide these work papers and calculations in hard copy and electronic spreadsheet form.

Response:

Refer to the files in subfolder "VZ-ATT 1.01" of the CD accompanying this response. In particular, refer to the following files:

ICM_DB_4.4.mdb

IL_Sw_Analysis.xls

VZ-ATT 2.02

Request:

With respect to Mr. Boyles' direct testimony starting at page 10, line5 through 17, please identify which switch or switches Mr. Boyles' would select to model Verizon's forward-looking switching costs for each of the wire centers in Verizon's Illinois service territory.

Response:

The switching technology choice was based upon that technology with the lowest investment per line based upon Verizon's supporting documentation. For switches in Verizon's six smallest categories (700, 1700, 3400, 6300, 10900 and 18400 lines including remotes), the technology with the lowest investment in line was Nortel's DMS-100 or DMS-10 technology. For switches in Verizon's two highest categories (36200 and 90000 lines including remotes), the technology with the lowest investment per line was Lucent's 5ESS technology.

VZ-ATT 2.04

Request:

With respect to Mr. Boyles' direct testimony at page 14, line1 through 6, please identify and provide all underlying work papers and calculations related to Mr. Boyles' calculations of the average investment per line for 5-ESS switches, for DMS-100 switches, for DMS-10 switches and for GTD-5 switches. Please also identify and provide all underlying work papers and calculations related to Mr. Boyles' calculation of the total switch investment presented at this point of his testimony. Please provide these work papers and calculations in hard copy and electronic spreadsheet form.

Response:

Refer to AT&T's response to VZ-ATT 1.01 and, in particular, the file named IL_Sw_Analysis.xls which contains those average investment calculations.

VZ-ATT 2.05

Request:

With respect to Mr. Boyles' direct testimony at page 21, lines 6 to 11, please identify which of the following FCC accounts, if any, he believes should be excluded from Verizon's switched access costs:

(a) account 6612;
(b) account 6611:
(c) account 6613.

Response:

The marketing cost identified by Mr. Boyles are those listed in the ICM output report for products and services, which are not identified by FCC account. Refer to AT&T's response to VZ-ATT 1.06, which identifies those costs.

VZ-IRCA 1.01

Request:

With Respect to Mr. Hendricks' direct testimony at page 7, lines 15 and 16, please define and explain Mr. Hendricks' understanding of "a typical proxy model."

Response:

Mr. Hendricks' reference was to proxy models that have been reviewed by the ICC and the FCC for purposes of calculating forward-looking costs of carriers in those instances when no company-specific model was available and/or when the regulatory body was interested in using a different means than company-specific cost models for purposes of calculating forward-looking costs for a carrier. For example, the FCC investigated the BCPM, Hatfield (later called HAI), and TECM in the its Universal Service proceeding (see paragraphs 218-245 of *First Report and Order,* CC Docket 96-45). The ICC also investigated BCPM in ICC Docket 97-0515 and HAI in ICC Dockets 00-0233/0335. These models are proxy models in the sense that, to fullest extent possible, they are based on publicly available information rather than actual company-specific information. In particular, each of these models approximates customer location information from publicly available information rather than through use of actual confidential company records on customer location.

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 provide 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 1.11

Request:

With respect to schedule 2 of Ms. Marshall's direct testimony, please state whether Ms. Marshall or someone else extracted the values under the column headings "TELRIC" from ICM. If someone else extracted the values, please identify that person.

Response:

Staff witness Mark Hanson extracted these values.

VZ-STAFF 1.17

Request:

With respect to Ms. Buckley's direct testimony at page 5, lines 93 and 95, please state the date that Ms. Buckley began her review of ICM.

Response:

The ICM review began on June 15, 2001.

VZ-STAFF 1.18

Request:

With respect to Ms. Buckley's direct testimony at page 5, lines 110 through 113, please identify by name the Paradox tables in which Ms. Buckley made changes. Please describe and list the changes made.

Response:

Ms. Buckley used ICM 4.2 version at the beginning of her ICM evaluation. She decreased labor values on the Illabr.db table, Tier A (the third column) and reran ICM to generate reports. No residual changes were found. Ms. Buckley called a Verizon ICM Specialist who told her that a combination of incorrect version, improper program, as well as possibly unclear procedure caused the lack of changes.

VZ-STAFF 1.19

Request:

With respect to Ms. Buckley's direct testimony at page 6, lines 122 through 125, please state whether it is Ms. Buckley's understanding or contention that in order to make changes to a Paradox table used by ICM it is necessary to export the table to an external application similar to Excel and then import the changed data back into the Paradox table.

Response:

It is understood that if one wanted to preserve the integrity of the database, not making permanent changes, it would be necessary to export the table to an external application, make the changes, save it under another name and save a new table in the Paradox format. Ms. Buckley wished to preserve the data files submitted by the Company in the proceeding, and elected to use this procedure.

VZ-STAFF 1.20

Request:

With respect to Ms. Buckley's direct testimony at page 6, lines 130 through 132, please list the changes Ms. Buckley made to the "ildemand.DB" table.

Response:

Ms. Buckley changed the first six positions (in numbers -29, -28, -28, -28, -28, and –28 to all positive numbers) in the column of X coordinate on the demand table, ildemand.DB.

VZ-STAFF 1.21

Request:

With respect to Ms. Buckley's direct testimony at page 6, line 135 and following, please identify and describe all of the runs initiated by Mr. Hanson. In particular, please state whether Mr. Hanson limited his changes to those made through a Run Time Options screen, or whether he made changes to any of ICM's input tables. If Mr. Hanson made changes to any ICM input table, please identify the table by name and state whether Mr. Hanson exported the table to an external application such as Excel or Microsoft Access in order to make the change.

Response:

Staff does not have an exhaustive list of all runs performed by Mr. Hanson. Mr. Hanson performed sensitivities on the impact of various fiber-copper loop length assumptions on costs and sensitivities on the impact of excluding shared costs from the calculation of the direct costs. Typically, changes were made by using the Preference menu options provided in the model. With the assistance of Mr. King of Verizon, Mr. Hanson performed the exercise of modifying a table by exporting the table into Microsoft Access, changing values in the table while the data was in Microsoft Access, and then exporting the data in Paradox database format so that the table could be associated with other tables in ICM for the purpose of generating a scenario.