WILMER, CUTLER & PICKERING
2445 M STREET, N.W.
WASHINGTON, DC 20037-1420

TELEPHONE +1 (202) 663 6000
FACSIMILE +1 (202) 663 6363
WWW.WILMER.COM

399 PARK AVENUE
NEW YORK, NY 10022-4697
TELEPHONE +1 (212) 230 8800
FACSIMILE +1 (212) 230 8888

100 LIGHT STREET
BALTIMORE, MD 21202-1036
TELEPHONE +1 (410) 986 2800
FACSIMILE +1 (410) 986 2828

1600 TYSONS BOULEVARD
10TH FLOOR
TYSONS CORNER, VA 22102-4859
TELEPHONE +1 (703) 251 9700
FACSIMILE +1 (703) 251 9797

4 CARLTON GARDENS
LONDON SW1Y5AA, ENGLAND
TELEPHONE +44 (0) 20 7872 1000
FACSIMILE +44 (0) 20 7839 3537

RUE DE LA LOI 15 WETSTRAAT
B-1040 BRUSSELS, BELGIUM
TELEPHONE +32 (0)2 285 49 00
FACSIMILE +32 (0)2 285 49 49

FRIEDRICHSTRASSE 95
D-10117 BERLIN, GERMANY
TELEPHONE +49 (30) 20 22 6400
FACSIMILE +49 (30) 20 22 6500

CATHERINE KANE RONIS
(202) 663-6380
CATHERINE.RONIS@WILMER.COM

August 19, 2003

BY FACSIMILE AND FEDERAL EXPRESS

Ms. Carole J. Washburn
Executive Secretary
Washington Utilities & Transportation Commission
1300 S. Evergreen Park Drive SW
Olympia, WA 98504-7250

Re: Docket No. UT-023003
Motion to Compel Discovery With Respect to the HM 5.3 Cluster Database

Dear Ms. Washburn:

Enclosed please find an original and seventeen copies of Verizon Northwest Inc.'s Motion to Compel Discovery With Respect to the HM 5.3 Cluster Database. Thank you for your consideration of this matter. Please contact me if you have any questions.

Sincerely,

Catherine Kane Ronis

Enclosures

cc: All Parties (via e-mail and U.S. Mail)

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

In the Matter of the Review of Unbundled Loop and Switched Rates; Review of Deaveraged Zone Rate Structure; and Unbundled Network Elements, Transport, and Termination	)	**Docket No. UT-023003**

CERTIFICATE OF SERVICE

I hereby certify that I have this 19th day of August 2003, served Verizon Northwest Inc.'s Motion to Compel Discovery With Respect to the HM 5.3 Cluster Database to the following parties of record in this proceeding by Federal Express or First Class Mail:

Administrative Law Judge Theodora Mace
Washington Utilities & Transportation Commission
1300 S. Evergreen Park Drive S.W.
Olympia, WA 98504-7250

Arthur A. Butler
WeBTEC
Ater Wynne
601 Union Street
Suite 5450
Seattle, WA 98101

Lisa A. Anderl
Qwest Corporation
1600 7th Ave., Rm. 3206
Seattle, WA 98101

Michel Singer Nelson
MCI/WorldCom, Inc.
707 17th St.
Suite 4200
Denver, CO 80202

Mary Steele
AT&T
Davis Wright Tremaine
2600 Century Square
1501 Fourth Avenue
Seattle, WA 98101-1688

Dennis D. Ahlers
Eschelon Telecom, Inc.
730 Second Avenue South
Suite 1200
Minneapolis, MN 55402

Brooks Harlow
Covad Communications Company
Miller Nash
601 Union Street
Suite 4400
Seattle, WA 98101-2352

R. Dale Dixon, Jr.
Allegiance Telecom Inc.
Davis Dixon Kirby
519 SW Third St.
Suite 601
Portland, OR 97204

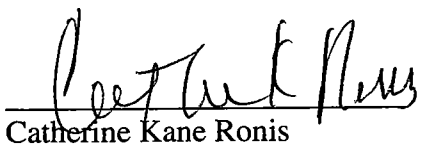
Mary Tennyson
Commission Staff
Senior Asst. Attorney General
1400 S. Evergreen Park Dr., SW
P.O. Box 40128
Olympia, WA 98504-0128

Simon Ffitch
Public Counsel
Assistant Attorney General
900 Fourth Avenue, #2000
Seattle, WA 98164

Shannon Smith
Commission Staff
Asst. Attorney General
1400 S. Evergreen Park Dr., S.W.
Olympia, WA 98504-0128

Carole Washburn
Executive Secretary
WUTC
1300 S. Evergreen Park Drive
Olympia, WA 98504-7250

Harry L. Pliskin
Covad Communications Company
7901 Lowry Blvd.
Denver, CO 80230



Catherine Kane Ronis
William R. Richardson, Jr.
Wilmer, Cutler, & Pickering
2445 M Street, N.W.
Washington, D.C. 20037
(202) 663-6000

BEFORE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

In the Matter of the Review of: Unbundled Loop and Switching Rates; the Deaveraged Zone Rate Structure; and Unbundled Network Elements, Transport, and Termination	Docket No. UT-023003

VERIZON NORTHWEST INC.'S MOTION TO COMPEL DISCOVERY WITH RESPECT TO THE HM 5.3 CLUSTER DATABASE

Pursuant to Section 480-09-480 of the Washington Administrative Code, Verizon Northwest Inc. ("Verizon NW") respectfully moves for an order compelling AT&T Communications of the Pacific Northwest, Inc. ("AT&T") and WorldCom, Inc. (d.b.a. "MCI") (collectively, "ATT/MCI") to respond to the following data requests propounded by Verizon NW seeking information about the cluster database employed in the cost model sponsored by AT&T/MCI ("HM 5.3" or "Model"): DR Nos. 1-4, 1-5, 1-9, 1-10,[1] 1-12, 1-13, 1-15, 1-18, 1-20,[2] 1-21, 3-2, 3-6, 3-11, 3-13, 3-21 and 3-24.[3]

Verizon NW served its first set of data requests on AT&T/MCI on July 10, 2003, and its third set on July 15, 2003.[4] Each of the requests at issue here relates directly to the reliability of the customer locations and clusters assumed in HM 5.3. That Model

---

[1] With respect to DR Nos. 1-10 and 1-20, AT&T/MCI have agreed to provide Verizon NW documents relating to their efforts to verify the accuracy of the results of the clustering process.

[2] *See supra* note 1.

[3] Verizon also supports the Motion to Compel filed by Qwest on August 12, 2003 seeking customer location data similar to the data sought herein.

[4] Copies of the requests at issue here, and AT&T/MCI's responses dated July 24, 2003 and July 30, 2003, are attached hereto as Exhibit A.

purportedly designs a network to serve customers grouped in clusters based on customer location data from mailing lists that were assigned a longitude and latitude.[5] These population clusters essentially serve as distribution areas for HM 5.3 and are assigned to serving wire centers.[6] Verizon NW's data requests ask a series of questions designed to assess the reliability of (1) the identification of customer locations (e.g., by seeking the geocoded data set and the number, identity, and percentage of locations successfully geocoded), and (2) the assignments of customer locations to clusters (e.g., by seeking the software and files associated with the clustering of customer locations and their conversion into serving areas).

There can be no question that this information about the cluster database employed in HM 5.3 is discoverable. AT&T/MCI claim that the cluster database employed in HM 5.3 "reflects a state-of-the-art approach to precisely determining customer locations."[7] However, while claiming that the customer location information is critical to the validity of their Model, they claim that such data is effectively inaccessible to the parties to this proceeding. In response to each of the data requests at issue here, they interpose the following identical objection:

> AT&T and MCI object to this data request on the ground that such information is not in their possession, custody or control. Any software and/or inputs used to derive customer locations are the intellectual property of Taylor-Nelson-Sofres Telecom (TNS) and are commercially available to Verizon NW from TNS.

This is a curious -- but by no means novel -- approach by AT&T/MCI to the obligation to file competent and reliable testimony in support of a proposed cost model.

---

[5] Before the Washington Utilities and Transportation Commission, Docket UT-023003, *Direct Testimony of Dr. Mark T. Bryant on behalf of AT&T Communications of the Pacific Northwest, Inc. and WorldCom, Inc.* (June 26, 2003) at p. 9, n.2 ("Bryant Direct").
[6] Bryant Direct at p. 9.
[7] Bryant Direct at p. 9.

It should be rejected here, just as it has been rejected in other proceedings. The Commission has recognized in the past that information of the sort requested by Verizon NW is essential to a meaningful review of AT&T/MCI's cost model submission. With respect to a predecessor version of HM 5.3, the Commission stated:

> The Commission agrees with GTE that access to the pre-processed geocoding and clustering data used to "geocode" customers and create the customer serving area is *critical* to evaluate the HAI Model's database and software. The Commission is also sensitive to the concerns of AT&T with respect to this information. However, AT&T's position leaves the parties and the Commission in a *totally unacceptable "black hole"* with respect to evaluating this information. Accordingly, the Commission orders AT&T to provide the information.[8]

Other state commissions have agreed. For example, the Public Utilities Commission of Nevada rejected the HAI Model for use in Nevada "until interested parties have been granted access to the data used by PNR."[9] And, in rejecting HM 5.2a, the Massachusetts Department of Telecommunications and Energy observed:

> [T]he Hatfield Model relies on a proprietary third-party database, which *necessarily limits parties' and the Department's access to critical underlying information* . . . The cumbersome nature of the remote access to the database, and most importantly the fact that *an essential underlying database is controlled and operated by a third party detracts from the Hatfield Model.* A model that relies on a third party proprietary database necessitates *unwieldy approaches* for obtaining access by interested parties.[10]

Verizon NW and the Commission confront the same "black hole" yet again. And there is no more basis for crediting AT&T/MCI's arguments for shielding the requested

---

[8] Before the Washington Utilities and Transportation Commission, In the Matter of Determining Costs for Universal Service, Docket No. UT-980311(a), *Seventh Supplemental Order Granting and Denying, In Part, GTE's Motion to Compel, and Denying U. S. West's Motion to Remove Testimony* (Aug. 26, 1998) at p. 3 (emphasis added).

[9] In re Petition by Regulatory Operations Staff for Investigation into Procedures and Methodologies to Develop Costs for Bundled and Unbundled Telephone Services and Service Elements in Nevada, WL 1998 WL 422777 (Nevada P.U.C.) *Opinion and Order* (March 5, 1998) at p. 3.

[10] Before the Massachusetts Department of Telecommunications and Energy, D.T.E. 01-02, *Final Order* (July 11, 2002) at p. 48 (emphasis added).

information from review here than there was in any of these other proceedings. First, the TNS software, data and/or inputs requested by Verizon NW are neither generic nor off-the-shelf varieties; rather, they were prepared by AT&T/MCI's consulting firm specifically for use in their cost model sponsored in this proceeding. Second, in response to AT&T/MCI's claim that the items requested are commercially available, Verizon NW inquired, in a prior Washington proceeding, as to the cost of such data and was quoted fees in excess of $2.5 million.[11] While this estimate pertained to an earlier version of the HAI Model, Verizon NW understands that the underlying processes, software, data and/or inputs are substantially the same, if not identical, to those of HM 5.3. Third, AT&T/MCI have provided similar information to Verizon in other UNE proceedings, and produced some of the requested data to SBC in a UNE proceeding just last fall.[12] There is thus no reason why they would be unable to do so here.

Information about the customer location data and the operation of the Model's clustering algorithm are critical to understanding the accuracy and reliability of HM 5.3. The database and clustering processes lay the foundation for the network being modeled and have a direct impact on every cost component of the modeled network. If this foundation is inaccurate, all UNE cost estimates produced by HM 5.3 will be inaccurate, and thus useless for this proceeding. The starting point for this process is the direct marketing mailing list data provided by Dun & Bradstreet and Metromail. Understanding the manner in which TNS manipulated this mailing list data, and the method by which

---

[11] Before the Washington Public Utility Commission, Docket UT-980311, "*PNR Estimates of the Resources Required to Support the Customer Location Model*," attached hereto as Exhibit B.

[12] Pursuant the Hearing Officer's ruling on Verizon's Motion to Compel, AT&T and TNS provided remote access to a portion of the requested data on November 7, and November 11, 2002. Before the Massachusetts Department of Telecommunications and Energy, D.T.E. 01-20, *Interlocutory Order on AT&T's Motion For Relief, Motions to Compel Verizon Responses to AT&T Information Requests, and Conditional Motion to Strike Verizon's Recurring Cost Model* (Oct. 18, 2001). Responsive information was provided to SBC California on November 8, 2002.

TNS derived distribution areas for a purportedly forward-looking local telecommunications network, is essential to a thorough analysis and appreciation for the inner workings of the Model.

As the Commission has recognized, to analyze thoroughly the accuracy (or lack thereof) of HM 5.3's customer location database and clustering algorithms, Verizon NW must have full access to all models, algorithms, and files (i.e., raw data, source code, intermediate results, and final cluster databases) used to develop these databases and algorithms. Without full access to the unclustered and clustered geocoded customer location data (i.e., processed, intermediate and source), and without substantive documentation detailing how the direct marketing mailing list databases were manipulated and clustered, the distribution areas upon which HM 5.3 bases its hypothetical network cannot be verified. Absent the ability to access every aspect of the database (including all models, source code, algorithms, files, and supporting documentation used in the process of developing the database), manipulate the clustering data, test alternative assumptions, and independently validate *all* the components of that database, HM 5.3 remains a "black hole." Accordingly, the Commission should order AT&T/MCI to produce this information without further delay, or in the alternative, strike HM 5.3 as unsupported.

In addition, the Commission should, at this time, address AT&T/MCI's apparent desire to file (or at least have the option of filing) an entirely new version of their cost model based on customer data that Verizon NW has provided well in advance of the filing of direct testimony. At the August 1, 2003 conference addressing its own motion to compel customer location data from Qwest Corporation, AT&T noted for the first time

that it may seek to replace the direct marketing mailing lists used as the starting point for HM 5.3 with actual customer locations provided to it by Verizon NW on May 22, 2003.[13] There is no justification for filing what would amount to an entirely new version of AT&T/MCI's cost model at this stage of the proceeding, particularly given AT&T/MCI's acknowledgement that they have long had access to Verizon NW's actual customer location information and simply chose not to use it for their filing. To permit AT&T/MCI to ignore the Commission's filing deadlines in this proceeding would not only wreak havoc on the Commission's timetable for completion of this proceeding, but also would have the highly prejudicial, and extremely costly, effect of requiring Verizon NW to analyze an entirely new set of customer location and cluster data at this late stage of the proceeding, thereby mooting the substantial investment of time and resources Verizon NW has expended to date. Thus, if the Commission contemplates permitting AT&T/MCI to file an entirely new version of their cost model, the revised procedural schedule issued by the Commission on August 5, 2003 should be suspended until that new version is produced, as Verizon NW explained in response to Staff's Motion to Extend Filing Schedule.[14]

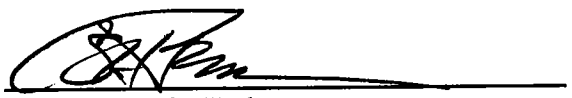
CONCLUSION

For the foregoing reasons, Verizon NW respectfully requests that the Commission grant this motion and order AT&T/MCI to provide prompt and complete responses to the foregoing data requests, or strike AT&T/MCI's cost model in its entirety. The Commission also should direct AT&T/MCI to disclose whether they intend to file a new

[13] Verizon NW has learned from counsel for AT&T that a decision on whether to file a new version of their cost model containing Verizon NW's customer location data is not likely to be made for several weeks.
[14] *See* Before the Washington Utilities and Transportation Commission, Docket UT-023003, *Verizon NW Response to Staff's Motion to Extend Filing Schedule* (Aug. 4, 2003) at 1, n.1.

version of their cost model relying on customer data provided by Verizon NW so that the Commission may consider whether the procedural schedule in this proceeding requires further revision.

Respectfully submitted,



Christopher S. Huther
Megan H. Troy
Preston Gates Ellis & Rouvelas Meeds LLP
1735 New York Ave., N.W.
Washington, D.C. 20006
Tel.: 202-628-1700
Fax.: 202-331-1024

William R. Richardson, Jr.
Catherine Kane Ronis
Wilmer, Cutler & Pickering
2445 M Street, N.W.
Washington, D.C. 20037
Tel: 202-663-6000
Fax: 202-663-6363

August 14, 2003

Attorneys for Verizon Northwest Inc.

Data Request No. 1-4

Provide in electronic format, the number and percentage of residential and business locations that were successfully geocoded to the point level for each Census Bloc Group in Verizon's Washington service area.

RESPONSE:

AT&T and MCI object to this data request on the ground that such information is not in their possession, custody or control. Any software and/or inputs used to derive customer locations are the intellectual property of Taylor-Nelson-Sofres Telecom (TNS) and are commercially available to Verizon from TNS. In addition, AT&T and MCI object that providing this information would require a special study and that the request is, therefore, overly burdensome.

Data Request 1-5
List all locations that have been:

a) Successfully geocoded to one zip code within the wire center boundary
b) Successfully geocoded to one zip code outside the wire center boundary
c) Successfully geocoded to multiple zip codes within the wire center boundary
d) Successfully geocoded to multiple zip codes outside the wire center boundary
e) Not successfully geocoded.

RESPONSE:

AT&T and MCI object to this data request on the ground that such information is not in their possession, custody or control. Any software and/or inputs used to derive customer locations are the intellectual property of TNS and are commercially available to Verizon from TNS. In addition, AT&T and MCI object that providing this information would require a special study and that the request is, therefore, overly burdensome.

Data Request 1-9
Provide, in electronic format, the geocoded data set for Verizon's Washington service area used to produce the clusters in HM 5.3.

RESPONSE:

AT&T and MCI object to this data request on the ground that such information is not in their possession, custody or control. Any software and/or inputs used to derive customer locations are the intellectual property of TNS and are commercially available to Verizon from TNS.

Data Request 1-10

Provide all the software, input files and other documents used to cluster customer locations or related to the clustering of customer locations (including, without limitation, any files that are immediate outputs of, and immediate inputs to, the clustering algorithm). Describe in detail and provide all documents related to the method by which AT&T, MCI and/or HAI Consulting, Inc. verified the accuracy of the results of the clustering process.

RESPONSE:

AT&T and MCI object to this data request to the extent that it requests information is not in their possession, custody or control. Any software and/or inputs used to derive customer locations are the intellectual property of TNS and are commercially available to Verizon from TNS.

Extensive efforts were undertaken to validate the accuracy of the clustering process, including review of mapped points by the model developers and engineering personnel supporting model development. To the extent that documents exist, they will be produced. In addition, the accuracy of the clustering process has been reviewed and verified through the course of in litigated proceedings before the FCC and numerous state commissions, including many proceedings in which Verizon has been a participant. AT&T and MCI object to producing documents from these proceedings because it would be unduly burdensome and because such documents are as available to Verizon as to AT&T and MCI.

Data Request 1-12
Please provide, in electronic format, the computer code(s) or algorithm(s) used to convert clusters into rectangular serving areas.

RESPONSE:

AT&T and MCI object to this data request on the ground that such information is not in their possession, custody or control. Any software and/or inputs used to derive customer locations are the intellectual property of TNS and are commercially available to Verizon from TNS.

Data Request 1-13

Please provide an electronic copy of the program(s) used to convert the clustering output into a format that can be read by the PointCode software, along with all documentation and input files.

RESPONSE:

AT&T and MCI object to this data request on the ground that such information is not in their possession, custody or control. Any software and/or inputs used to derive customer locations are the intellectual property of TNS and are commercially available to Verizon from TNS.

Data Request 1-15
For each customer location in Verizon's Washington service area, identify the following:

1) whether it is a business, residential, public line, DS-1 or DS-3
2) the geographic coordinates for that location
3) whether it was successfully geocoded or located through a surrogate process
4) the cluster the location was assigned to
5) the wire center the location was assigned to

In preparing these data, please include all locations that included lines or services that were used to produce the unit costs that appear on page 3 of Dr. Bryant's Direct Testimony.

RESPONSE:

AT&T and MCI object to this data request on the ground that such information is not in their possession, custody or control. Any software and/or inputs used to derive customer locations are the intellectual property of TNS and are commercially available to Verizon from TNS.

Data Request No. 1-18
For Verizon's Washington service area, provide:

a) the number of addresses obtained through the Metromail, Inc. National Consumer Database; b) the percentage of addresses to total households obtained through Metromail, Inc. National Consumer Database; and, c) the percentage of addresses that are P.O. Boxes and Rural Route Boxes.

RESPONSE:

AT&T and MCI object to this data request on the ground that such information is not in their possession, custody or control. Any software and/or inputs used to derive customer locations are the intellectual property of TNS and are commercially available to Verizon from TNS. In addition, AT&T and MCI object that providing this information would require a special study and that the request is, therefore, overly burdensome.

Data Request 1-20
Provide all the software, input files, and other documents used to geocode customer locations or related to the geocoding of customer locations (including, without limitation, any files that are immediate outputs of, and immediate inputs to, the geocoding process). Describe in detail and provide all documents related to the method by which AT&T, MCI and/or HAI Consulting, Inc. verified the accuracy of accuracy of the results of the geocoding process.

RESPONSE:

AT&T and MCI object to this data request on the ground that such information is not in their possession, custody or control. Any software and/or inputs used to derive customer locations are the intellectual property of TNS and are commercially available to Verizon from TNS.

The Centrus Desktop software is commercially available software, among many others, commonly used by businesses to perform geocoding of address information. The accuracy of the software is ensured by the competitive market in which Centrus operates. Independent validation of the accuracy of the software is neither feasible nor necessary.

Data Request 1-21

Provide all the software, input files, and other documents used to locate customers who could not be geocoded or related to the process of locating customers that could not be geocoded (including, without limitation, any files that are immediate outputs of, and immediate inputs to, this process). Describe in detail and provide all documents related to the method by which AT&T, MCI and/or HAI Consulting, Inc. verified the accuracy of the results of this process.

RESPONSE:

AT&T and MCI object to this data request on the ground that such information is not in their possession, custody or control. Any software and/or inputs used to derive customer locations are the intellectual property of TNS and are commercially available to Verizon from TNS.

Extensive efforts were undertaken to validate the accuracy of the process of assigning customer locations to the road network, including review of mapped points by the model developers and engineering personnel supporting model development. To the extent that documents exist, they will be produced. In addition, the accuracy of the process has been reviewed and verified through the course of in litigated proceedings before the FCC and numerous state commissions, including many proceedings in which Verizon has been a participant. AT&T and MCI object to producing documents from these proceedings because it would be unduly burdensome and because such documents are as available to Verizon as to AT&T and MCI.

Data Request No. 3-2

Provide electronic copies of all programming codes, algorithms, and any other rules and procedures that were used to manipulate the Dun & Bradstreet and Metromail databases.

a) Describe how the data were manipulated and provide all intermediate files, documentation and/or notes describing this process.

b) Provide an electronic copy of the immediate output file of the process described above. This file(s) might be the input file to the geocoding process. If this file is different than the input file to the geocoding process, then provide all files up to the file that was geocoded (including the input file to the geocoding process) and provide an explanation as to how these files differ.

Response

AT&T and MCI object to this data request on the ground that such information is not in their possession, custody or control. Any software and/or inputs used to derive customer locations are the intellectual property of Taylor-Nelson-Sofres Telecom (TNS) and are commercially available to Verizon from TNS.

Data Request No. 3-6

To the extent that wire center boundaries are not contained in the customer location data used in the inputs database to HM 5.3 (see Verizon NW, Set 1, data request 1-5), identify for each customer location in Verizon NW's serving area whether the location has been:

a) Successfully geocoded to one zip code,
b) Successfully geocoded to multiple zip codes,
c) Not successfully geocoded.

Response:

Please response to Verizon 1-5. AT&T and MCI object to this data request on the ground that such information is not in their possession, custody or control. Any software and/or inputs used to derive customer locations are the intellectual property of TNS and are commercially available to Verizon from TNS.

Data Request No. 3-11

If not otherwise provided in response to Verizon NW's Set 1, data request number 1-10, provide, in electronic format, the clustering algorithm(s) described in Section 5.4 of "HAI Model, Release 5.3, Model Description," along with all documents concerning, referring or relating to the clustering algorithm, including all input values and input files.

Response:

AT&T and MCI object to this data request on the ground that such information is not in their possession, custody or control. Any software and/or inputs used to derive customer locations are the intellectual property of TNS and are commercially available to Verizon from TNS.

Data Request No. 3-13

Provide, in electronic format, a copy of the complete clustering source code in its original programming environment. (For instance, if the code was written in C++, please provide the uncompiled C++ programming code.) Should the clustering code be part of another program, provide this program along with the clustering code.

Response:

AT&T and MCI object to this data request on the ground that such information is not in their possession, custody or control. Any software and/or inputs used to derive customer locations are the intellectual property of TNS and are commercially available to Verizon from TNS.

Data Request No. 3-21

Provide, in electronic format, a copy of the complete surrogating source code in its original programming environment. (For instance, if the code was written in C++, please provide the uncompiled C++ programming code). Should the surrogating code be part of another program, please provide this program along with the surrogating code.

Response:

AT&T and MCI object to this data request on the ground that such information is not in their possession, custody or control. Any software and/or inputs used to derive customer locations are the intellectual property of TNS and are commercially available to Verizon from TNS.

Data Request No. 3-24

Referring to Section 6.1 of HAI 5.3's Model Description:

a) Provide the "database developed by TNS" that is referenced in the first line.
b) Identify and describe the "demographic parameters" obtained from the database, including the vintage of the data and the process TNS used to develop these parameters.
c) If not addressed in the response to item b), identify the "number of households and number and type of housing units," including the vintage of the data and the process used to develop these parameters.
d) If not addressed in the response to item b), identify the "number of business firms and employees," including the vintage of the data and the process used to develop these parameters.

Response:

a) Please see response to Verizon DR no. 1-20. AT&T and MCI object to this data request on the ground that such information is not in their possession, custody or control. Any software and/or inputs used to derive customer locations are the intellectual property of TNS and are commercially available to Verizon from TNS.

b) The demographic parameters are defined in Section 6.1 of the HAI Model Description.

c) Please see response to DR no. 3-23(c).

d) The number of business firms and employees is derived from Census Bureau 1990 data.

PNR Estimates of the Resources Required to Support the Customer Location Model

The following are some general estimates of what would be required to support the PNR Customer Location Model under two different scenarios. The actual requirements would need to be directly verified with a number of the third parties involved. In some cases, this would require an independent servicing organization to establish an agreement of a custom nature directly with the providers of data or services.

Since PNR does not know the exact pricing or terms of such agreements would be, Scenario #1 includes the approximate market rates for the associated products, based on the assumption that the servicing organization acts as a single user end-client. The degree to which that servicing organization would act as a third-party gateway to an indeterminate number of end-users, and the nature of their pass-through offering, will determine the actual final cost of the custom agreement. At this time, it is not clear if the third parties would allow such a relationship at all.

In all cases, it is assumed that the models used are at the Cluster level of detail. Estimated costs are based from PNR's general knowledge of standardized pricing in the information industry.

SCENARIO #1:

FCC appoints an independent organization to run and maintain the PNR Customer Location Model and other data to provide cost of service estimates to external parties.

Assumptions:

1. Service organization takes over full production and support of the Customer Location Model and its components.
2. Lowest level of data components would be at the Cluster level of detail.
3. Pricing is based on single-user, end client pricing. Unlimited usage, networked multi-user licenses, third-party reselling rights, the amount and nature of actual data delivered to end-users, and the use at a summary analytical level will have an impact on the actual prices charged.
4. All vendors would be willing to negotiate special agreements for this firm to act as a third-party processor for the FCC and the entire telecommunications industry. This is by no means assured.
5. Data sources are priced for one version per year.

Estimated Annual Licensing Costs (Scenario #1):

Claritas, Inc.: National database at CBG level of 50 key Current Year Estimate driver variables *(approximately 250,000 records).*	**$75,000**
Dun & Bradstreet Information Services: National database of 11+ million businesses, at the firm level of detail *(approximately 11+ million records).*	**$750,000**
Metromail Corporation: National database of 103+ million households with associated HHD demographics *(approximately 103+ million records).*	**$900,000**
Qualitative Marketing Software, Inc.: CENTRUS Geocoding Software License	**$30,000**
Qualitative Marketing Software, Inc.: CENTRUS Service Bureau License. *(one-time only fixed fee)*	**$20,000**
Geographic Data Technology, Inc.: Point -Coding Reference Data for CENTRUS point-coding software	**$25,000**
Business Location Research, Inc.: Wire Center *MapInfo* Mapping Boundaries	**$15,000**
PNR and Associates, Inc.: National Access Line Model License (Block level)	**$300,000**
PNR and Associates, Inc.: Data Preparation and Clustering Software License	**$400,000**
PNR and Associates, Inc.: Training: Orientation and education on how to use the models.	**$100,000**
Total:	**$2,615,000**

Points of Consideration:

- There is a dependence on external data and software providers.
- A servicing organization has no ability to update models.
- There is a *major learning curve* for the service organization to overcome to be able to begin the process. This may be the largest cost component of all.
- There may be a significant delay associated with the various data vendors in preparing the necessary custom licensing agreements to allow the third-party processor to provide these services.
- It may take a new third-party processor 6-12 months to become fluent with the models and produce the first deliverables.
- The third-party service bureau may not have the requisite understanding of the component data sources and their limitations (Census data and geographies, telco data, geocoding data, estimation techniques, household data, business data, custom spatial clustering, etc.) to answer technical inquires -- or enhance -- the models.

SCENARIO #2:

FCC appoints PNR and Associates, Inc. to be an external service organization to run and maintain the PNR Customer Location Model and provide resulting clusters (by Wire Center) to the organization developing cost of service estimates. The FCC, or Plan Administrator uses the pre-processed inputs to directly produce the end-user cost estimates.

Assumptions:

1. PNR continues production, maintenance and support of the Customer Location Model components.
2. PNR continues its present affiliate relationships with Dun & Bradstreet, Metromail, and Claritas.
3. Pricing is based on single-user, end client pricing. Unlimited usage, networked multi-user licenses, third-party reselling rights, the amount and nature of actual data delivered to end-users, and the use at a summary analytical level will have a major impact on the actual prices charged.
4. Data sources are priced for one version per year. No monthly or quarterly updates are included.
5. All data suppliers must be credited in documentation of the end deliverables to the users, and in methodology documentation.

Estimated Annual Licensing Costs:

Claritas, Inc.: National database at CBG level of 50 key Current Year Estimate driver variables. *(approximately 250,000 records)* **Royalties***

Dun & Bradstreet Information Services: National database of 11+ million businesses, at the firm level of detail. *(approximately 11+ million records)* **Royalties***

Metromail Corporation: National database of 103+ million households with associated HHD demographics. *(approximately 103+ million records)* **Royalties***

Qualitative Marketing Software, Inc.: CENTRUS Geocoding Software License (annual fee) **License Fee***

Geographic Data Technology, Inc.: Point -Coding Reference Data for CENTRUS point-coding software **License Fee***

PNR and Associates, Inc.: Customer Location Model *including*
National Access Line Model License (CB level)
Data Preparation and Clustering Software Use
Training and Support **$ 1,200,000***

Business Location Research, Inc.: Wire Center *MapInfo* Mapping Boundaries (annual fee) **License Fee***

TOTAL: **$ 1,200,000**

(Note: All royalties and license fees will be included in PNR's contract fee.)*

Points of Consideration:

- No break in the "institutional memory" associated with the models associated with customer location. The staff of PNR who have played active roles in the development of the different model components will provide model support and maintanence.
- PNR has the ability to completely update the models as required.
- There is *no learning curve* to overcome to begin the process. This may minimize the largest cost component of all. There would be a minor learning curve for the FCC, or plan administrator, to learn how to use the data inputs to generate the end cost figures or factors.
- PNR has existing affiliate and licensing agreements with all the data vendors.
- There would be no lag-time associated with being able to produce the first deliverables.
- PNR has an intimate understanding of all of the component data sources and their limitations (Census data and geographies, telco data, geocoding data, estimation techniques, household data, business data, custom spatial clustering, etc.) to answer technical inquires about the models.
- PNR is the firm best positioned to suggest future enhancements to the models or the methodology.
- Still have dependence on external service vendors for data and support.
- Some adjustments to existing affiliate agreements may be required by PNR to cover the logistics and royalties in the above scenario.