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BEFORE THE ARIZONA CORPORATION COMMISSION

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2002 MAY -6 P 3: 26

WILLIAM A. MUNDELL

Chairman

JIM IRVIN

Commissioner

MARC SPITZER

Commissioner

AZ CORP COMMISSION
DOCUMENT CONTROL

**IN THE MATTER OF INVESTIGATION
INTO QWEST CORPORATION'S
COMPLIANCE WITH CERTAIN
WHOLESALE PRICING
REQUIREMENTS FOR UNBUNDLED
NETWORK ELEMENTS AND RESALE
DISCOUNTS.**

**DOCKET NO. T-00000A-00-0194
PHASE II**

**QWEST CORPORATION'S NOTICE OF FILING
ORIGINAL AFFIDAVIT OF PETER COPELAND**

NOTICE IS HEREBY GIVEN that the original Affidavit of Peter Copeland in Support of Qwest Corporation's Response to AT&T'S and Worldcom's Request for Clarification of the April 19, 2002 Procedural Order is filed herewith.

DATED: May 6, 2002

Respectfully submitted,

Qwest Corporation

By: 

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Arizona Corporation Commission

DOCKETED

MAY 06 2002

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ORIGINAL and 10 copies of the foregoing hand-delivered for filing this 6th day of May, 2002 to:

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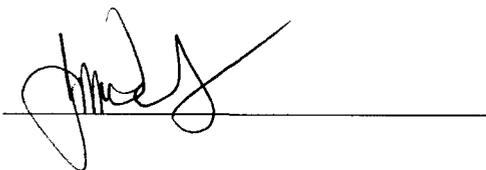
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A handwritten signature in black ink, appearing to read 'Joan Burke', is written over a solid horizontal line.

PHX/1298562.1/67817.240

result from the model's original use of 1997 customer location data and 2000 line count data. Upon seeing the proposed amendment, on April 9, 2002, I called TNS Telecoms ("TNS") and talked to Mr. Charles White, who is TNS' Managing Director Internet Business Development and Product Management. The purpose of the call was to determine if TNS could prepare Qwest's 2000 customer location data for use in the HAI Model.

3. I told Mr. White that Qwest was considering using its year 2000 Arizona customer location data in the HAI model, and that we wanted to use the 2000 United States Census Bureau information to place customers who could not be geocoded at surrogate points. The use of these 2000 Census data -- Census Block data and Census TIGER road information¹ -- will lead to consistency between the year 2000 line counts and geocoded customer locations. In fact, using a data source other than year 2000 Census data would fail to reconcile the line count data and the customer location data, causing the same inconsistencies that Commissioner Spitzer's amendment attempted to avoid.

4. Mr. White told me that TNS would not be able to use the 2000 Census Block data or the 2000 Census Bureau TIGER road information to process Qwest's 2000 customer location data. It is my understanding from our conversation that the 2000 Census data that was needed to follow the HAI procedures for placing customer locations was not yet available from the United States Census Bureau and that TNS would use an older version of the data to process the locations and to create the HAI cluster input files.

5. I also asked Mr. White to estimate how long it would take TNS to prepare the necessary HAI cluster input files using Qwest's customer location data, even if TNS were to use pre-2000 Census data. He responded that TNS could complete the process four weeks from its receipt of the customer location data.

¹ "TIGER" refers to the Census Bureau's Topologically Integrated Geographic Encoding and Referencing database.

6. Based on past experience that I have had with TNS, including on-site visits at their facility in Pennsylvania, I know that their practice is to treat their clustering algorithms as highly proprietary. To my knowledge, they do not provide access to the algorithms they utilize to place surrogate points and to create the clusters for use in the HAI Model. In fact, I attended the deposition of the AT&T/WorldCom witness, Douglas Denney, who sponsored the HAI model in this proceeding, during which he acknowledged that he had not seen even the customer location data that TNS used to create the customer clusters used in the model that he sponsored. I have personally been involved in reviewing the HAI model since its inception in 1994. To my knowledge, the TNS algorithms have never been disclosed in public filings of the HAI Model or even to AT&T and WorldCom, the primary sponsors of the model. TNS also has refused to make them available for inspection by parties who pay TNS to obtain limited access to TNS' customer location data. On the two occasions that I have been given limited access to the TNS data used in the HAI model in connection with proceedings in other states, TNS did not allow me to review the algorithms. They permitted access only to the cluster data and customer points. Qwest was required to pay TNS a total of approximately \$30,000 for these two limited reviews.

7. Without access to the TNS algorithms and the output data at each step of their geocoding process, it is not possible to audit TNS' results and processes for accuracy. For any meaningful review of the work and results, TNS must provide all steps, algorithms, and data used in geocoding locations, placing surrogate points, and clustering customer locations. TNS has never provided this level of access to its processes or data.

8. Because of our concerns with the ability of TNS to use the correct data and to complete the preparation of Qwest's 2000 customer location data quickly enough to meet the Commission's deadline of May 24, 2002 for producing model results, I contacted Stopwatch Maps to discuss an alternative way of obtaining geocoded data to be inserted into the HAI model. Stopwatch is a highly qualified geographic information service firm, with a long history of

involvement in the development of telecommunications cost models. Its qualifications and experience include:

- Analyzing HAI 5.0 customer location and cluster information for Qwest and other parties in numerous unbundled network element and universal service proceedings, including the FCC universal service proceeding.
- Developing national customer location and geographic information for the BCPM model and developing the original terrain data utilized by the HAI Model.
- Providing geographic analysis, development, and support for the Bell South loop cost model that utilizes geo-coded customer location data and road data for developing loop cost.

9. Stopwatch agreed to complete the task within 17 calendar days of receiving the year 2000 customer locations from Qwest. Stopwatch also agreed to use year 2000 Census data and year 2000 Census Bureau TIGER road data so that its clusters would match the year 2000 line counts.

10. Recognizing that the preparation of the customer location data needed to be open to full evaluation by the Commission and the parties, I asked Stopwatch to identify the information it would provide to allow audits of its work. Stopwatch agreed to provide the following data, which will permit Qwest or any other party to this proceeding to audit the accuracy and reasonableness of its methods in geocoding the data and developing cluster information:

- Algorithms for placing surrogate customer locations.
- Algorithms for creating clusters.
- Algorithms for calculating strand distance (right angle minimum spanning tree).
- Intermediate results of the following processes: geocoding; road surrogation of non-geo-coded customer locations; and raw cluster results (convex hulls and customer points).

11. On April 15, 2002, Qwest engaged Stopwatch Maps to perform the geocoding. Since that time, Stopwatch has been performing various programming activities so that it could complete the task in time for Qwest to provide HAI model runs prior to May 24.

DATED this 3rd day of May, 2002.

Peter Copeland

PETER COPELAND

SUBSCRIBED AND SWORN TO before me this 3rd day of May, 2002.

Donna L. Gullano

My Commission Expires:

12/19/2002