## May 24, 2002

# COMMONWEALTH OF VIRGINIA STATE CORPORATION COMMISSION

In the Matter of Application of Verizon Virginia Inc. for FCC Authorization to Provide In-Region, InterLATA Service in Virginia	)	Docket No. PUC-2002-0046
	)	

DECLARATION OF PWC ON BEHALF OF VERIZON VIRGINIA INC.

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# COMMONWEALTH OF VIRGINIA STATE CORPORATION COMMISSION

In the Matter of Application of Verizon		
Virginia Inc. for FCC Authorization to Provide	)	Docket No. PUC 2002-0046
In-Region, InterLATA Service in Virginia	)	
	)	
	)	

# JOINT DECLARATION OF PWC ON BEHALF OF VERIZON VIRGINIA INC.

#### I. QUALIFICATIONS

- 1. My name is William M. Cobourn, Jr. My business address is 1301 Avenue of the Americas, New York, NY 10019. I am a Partner with PricewaterhouseCoopers LLP's ("PwC") Telecommunications Industry practice. I am a Certified Public Accountant with over 18 years of relevant experience including performing audits of financial statements and attestations in the telecommunications sector. I currently lead PwC's Auditing and Accounting practice for the telecommunications industry in the United States.
- 2. I received a Bachelor of Science degree in Accounting from the University of Delaware in 1983. I spent an extensive portion of my 18 years of experience devoted to performing audit and attest engagements in the telecommunications sector. I have provided these services to numerous telecommunications companies during this time, including both wireline and wireless carriers. I have led audit and attest engagements for several major telecommunications entities, including the audits and reviews of financial statements, attestations on management assertions, agreed-upon procedures reports and reviews of systems of internal control. I was a

- member of the American Institute of Certified Public Accountants

  Telecommunications Subcommittee and am a frequent lecturer on the subject of auditing in the telecommunications industry.
- My name is Joseph C. Atkinson. My business address is 2001 Market Street,
   Philadelphia, PA 19103. I am a Principal with PwC's Telecommunications Industry practice. I am a Certified Information Systems Auditor.
- 4. I received a Bachelor of Science degree in Finance from the Pennsylvania State University in 1992. I have over nine years of experience in the area of business process, audit and control. I have spent my entire career at PwC (1993 to present) working in the telecommunications industry. I have directed audits of the major systems used to support financial reporting, assessments of internal control environments over financial and operational systems, internal control reviews of billing and receivables systems, and assessment of systems development and data center operations and controls for major telecommunications providers.
- 5. My name is Kate Bluvol. My business address is 300 Atlantic Street, Stamford, CT 06901. I am a Partner with PwC's Telecommunications Industry practice. I am a Certified Public Accountant with over 13 years of experience including performing audits of financial statements and attestations in a variety of industries for a variety of PwC clients. I have led several other attestation engagements related to Verizon's 271 application filings in various other states.
- I received a Bachelor of Science degree in Accounting from the University of
  Delaware and a Masters in Business Administration, Finance, from the Columbia
  University School of Business.

7. PwC professionals under our direct supervision have performed the work described below, and we make this declaration based upon our direct knowledge as well as information provided to us from these other PwC employees.

#### II. PURPOSE OF TESTIMONY AND OVERVIEW OF OBSERVATIONS

- 8. We have been asked by Verizon ("the Company") to examine certain assertions relating to the Billing Output Specifications ("BOS") Bill Data Tape ("BDT") electronic billing medium used by Verizon to bill certain of its Competitive Local Exchange Carrier customers ("CLECs") in Virginia. Our examination included three different engagements covering the following billing periods: December 16, 2001 through January 15, 2002 (the "first test period"); February 3, 2002 through February 16, 2002 (the "second test period"); and April 25, 2002 through May 7, 2002 (the "third test period"). Our testing for the first test period covered the six Verizon assertions regarding the matters listed below. Our testing for both the second and third test periods covered each of the Assertions 1 through 4:
  - The comparability of the BDT to the Paper Bill of Record ("Paper Bill") with regard to the level of detail and summarization points (Assertion 1);
  - The comparability of the BDT to the Paper Bill with regard to billing values for each level of detail and summarization points (Assertion 2);
  - The ability of the BDT to be recalculated by a third party (Assertion 3);
  - The internal consistency of the BDT (Assertion 4);
  - The level of adjustments made to the BDT bills as a percent of current charges for the test period (Assertion 5);
  - Verizon's BDT bills distribution and timeliness (Assertion 6).

Verizon's Assertions 1 – 4 for the first test period indicated a number of exception conditions. Verizon subsequently implemented system changes to correct certain exception conditions contained in the first test period, and at the request of management, we performed examinations covering the second and third test periods. Verizon's assertions (including exceptions to assertions) for the first, second and third test periods and our related PwC reports are included in Attachments 1, 2 and 3, respectively. Section III of our declaration contains a complete description of the work we performed in evaluating management's assertions: paragraphs 16 to 48 (first test period), paragraphs 49 to 73 (second test period) and paragraphs 74 to 100 (third test period).

- 9. To report on Verizon's assertions, we examined a selection of actual BDTs and Paper Bills in Virginia. We also examined supporting documentation evidencing Verizon's control process and procedures surrounding the generation and processing of the BDTs. As a basis for reporting on Assertions 1-4, we examined BDTs for different products (Transport, UNE-platform, UNE-Loop, and Resale) using Microsoft Access (a generally available software program) to compare the BDT to the corresponding Paper Bills. As a basis for reporting on Assertions 5 and 6 (specific to the first test period), we examined the level of BDT "adjustments" as a percentage of current charges, and BDT processing procedures and timeliness for bills.
- 10. Based on our examination and the results of our procedures as explained in Section III, in our opinion, the Company's assertions, including all exceptions noted, included in Attachments 1, 2 and 3 are fairly stated, in all material respects.
- 11. This PwC declaration should be read solely in relation to the matter stated above.
  Our work was prepared for Verizon for this filing and therefore we make no

- representation as to the sufficiency of our work for any other purpose. Any and all observations in this declaration are made based on the evaluation of CLEC customer billing documentation, methods and procedures, configuration of systems, and system-generated reports provided during the period of our fieldwork.
- 12. This PwC declaration is for use by management for inclusion in and use in connection with Verizon's 271 filings before the Commonwealth of Virginia State Corporation Commission and the Federal Communications Commission. The declaration, or portions thereof, should not be referred to or quoted, in whole or in part, in any registration statement, prospectus, loan agreement, or other similar agreement or document without our prior written approval, which may require that we perform additional work. The declaration should not be relied upon by any other third party for any other purposes.
- 13. This engagement has been performed under the Attestation Standards of the American Institute of Certified Public Accountants (AICPA). This engagement is to the attestation standard. An attestation engagement is one in which the client engages a practitioner to issue a written communication that expresses a conclusion about the reliability of a written assertion that is the responsibility of another party. The AICPA's Statement on Standards for Attestation Engagements require the following (§100, Paragraphs .06 .70):

#### **General Standards**

- The engagement shall be performed by a practitioner having adequate technical training and proficiency in the attest function.
- The engagement shall be performed by a practitioner having adequate knowledge of the subject matter.
- The practitioner shall perform the engagement only if he or she has reason
  to believe that the subject matter is capable of evaluation against criteria that
  are suitable and available to users.
- In all matters relating to the engagement, an independence in mental attitude shall be maintained by the practitioner.
- Due professional care shall be exercised in the planning and performance of the engagement.

#### **Standards of Field Work**

- The work shall be adequately planned and assistants, if any, shall be properly supervised.
- Sufficient evidence shall be obtained to provide a reasonable basis for the conclusion that is expressed in the report.

## Standards of Reporting

- The report shall identify the assertion being reported on and state the character of the engagement.
- The report shall state the practitioner's conclusion about the assertion in relation to the criteria against which the subject matter was evaluated.
- The report shall state all of the practitioner's significant reservations about the engagement, the subject matter, and the assertion related thereto.

- 14. In the remaining part of this declaration, we provide additional detail regarding our test work and procedures.
- 15. Throughout our declaration, we reference a number of acronyms, systems or other technical terms. We have included as Attachment 4 a list of acronyms, systems and terms and their definitions.

# III. EXAMINATION OF CERTAIN ATTRIBUTES OF THE BOS BDT ELECTRONIC BILLING MEDIUM IN VIRGINIA

## A. Overview of General Methodology and Approach for the First Test Period

- 16. Verizon asked PwC to independently examine its BOS BDT electronic billing medium used to bill CLECs in Virginia to support Verizon's assertions regarding:
  - The comparability of the BDT to the Paper Bill with regard to the level of detail and summarization points (Assertion 1);
  - The comparability of the BDT to the Paper Bill with regard to billing values for each level of detail and summarization points (Assertion 2);
  - The ability of the BDT to be recalculated by a third party (Assertion 3);
  - The internal consistency of the BDT (Assertion 4).
- 17. Our testing included examining 25 BDTs produced for the bill periods fromDecember 16, 2001 through January 15, 2002 as a basis for reporting on Assertions1 through 4.
- 18. Verizon also asked us to examine its assertion regarding the level of adjustments for its Virginia BDTs during the first test period (Assertion 5). Our testing included obtaining a schedule which calculated the percentage of adjustments to current charges for the period, checking the mathematical accuracy of that schedule, and performing procedures on a selection of 20 BDTs that are subject to the Quality Review and Adjustment Process (UNE-Platform, UNE-Loop and Resale) from our original selection of 25 bills to determine whether the information included on the schedule was correct. (Transport bills do not require this adjustment process.)

- 19. Verizon also asked us to examine its assertion regarding the completion and timeliness of its Virginia BDTs for the first test period (Assertion 6). Our testing included obtaining a listing of BDTs generated during the test period and performing procedures on the selection of 20 BDTs (described above) to determine whether those BDTs were processed in accordance with Verizon's methods and procedures, including process controls and transmission within the 10 business day standard.
- 20. The testing selection of BDTs that we examined during our testing for the level of adjustments were subject to the following process by Verizon:
  - a) Electronic billing data is produced by the billing system.
  - b) BDT file extract is created by the billing system.
  - c) BDT files are subject to the Quality Review and Adjustment Process that executes a balancing routine to compare Paper Bill charges to the BDT and determine if the BDT balances internally. BDTs that pass the balancing checks are processed by the Bill Reformatting System and immediately distributed to the CLEC. BDTs that do not pass the balancing checks are subjected to subsequent steps in the Quality Review and Adjustment Process.
  - d) Verizon's BDT Quality Team reviews and approves adjusted BDTs.
  - e) Verizon's Wholesale Billing Services Group reviews and approves adjusted BDTs.
  - f) Adjusted BDT files are processed by the Bill Reformatting System and released to the CLEC.

Assertions 1 through 6, which were evaluated in the first test period, are stated in the Report of Management Assertions, dated April 8, 2002, that is Attachment 1 to this declaration.

21. Management's assertions and hence our examination was not intended or designed to test the completeness or accuracy of the billing information produced by the Company's billing system, because we understand the Company has already completed a third party test of the Paper Bill.

# Understanding of Methods and Procedures and Controls Surrounding BDT Creation and CLEC Bill Processing

- 22. The scope of our examination included understanding, documenting and testing Verizon's methods and procedures and internal control structure surrounding the creation and validation of the electronic BDT files. This understanding and the results of our test work provide the basis for our conclusions as to whether management's assertions are fairly stated in all material respects. These methods and procedures and the internal control structure include the Quality Review and Adjustment Process that is designed to validate the BDT and when necessary, adjust the BDT to the Paper Bills.
- 23. Our testing of the internal control structure included interviews of personnel, observations, and testing of the procedures and controls put in place.

#### Scope and Sample Selection

24. In order to report on Assertions 1 through 4, we selected a sample of 25 monthly BDTs issued during the first test period from a total population of 197 BDTs (39 of which are subject to the Quality Review and Adjustment Process as described in paragraph 20). Our selection provided coverage of approximately 13% of the total population of BDTs or 98% of the total current charges during the first test period across all types of BDTs. Our selection ("the test selection") is comprised of the

- following types: UNE Loop; UNE Platform; Resale; and Transport. We believe that the selection size and composition is adequate to support our conclusions with regard to management's assertions (Assertions 1 through 4).
- 25. We requested and received copies of both the BDT and the Paper Bill for each selected invoice from the first test period. We also examined supporting documentation relating to adjustments made during the BDT Quality Review and Adjustment Process.
- 26. Following is a summary, by management assertion, of the test procedures performed to support our conclusion with regard to the assertions for the first test period.

#### **ASSERTION 1 - SUMMARIZATION POINTS AND BILLING ELEMENTS**

27. The Company asserts the following (see Attachment 1):

The BOS Bill Data Tape ("BDT") electronic billing medium, which is consistent with the Telcordia Technologies Special Report SR1874 (the "BDT Guidelines") and implemented according to Verizon's December 22, 2000 Plan of Record, contains the summarization points (or detail to derive the summarization points) and billing elements currently available on the Paper Bill of Record ("Paper Bill") (as detailed in Exhibit A), except for the following:

- a) In Resale BDT Invoices, the *Measured Call Account Summaries* and Community Choice Account Summaries differ from the Paper Bill.
- b) In Resale BDT Invoices containing Key Connection Volume Discounts, some record type details are not present. On January 1, 2002, Verizon implemented a system fix which addressed this exception effective with the January 1, 2002 Bill Period.

- c) In certain instances for Resale, Platform, and Loop BDT Invoices, the billing elements in the Other Charges and Credits sections (OCC's) differ from those in the Additions and Changes to Service section on the Paper Bill. These differences include "from" and "through" dates and the charge type indicators.
- d) In Loop BDT Invoices, some circuit locations differ from the Paper Bill.
- e) In certain instances for Resale, Platform and Loop BDT Invoices, some *OCC* sections and some *Monthly Recurring Charges* sections contain a miscellaneous USOC, which applies to multiple descriptions and rates that differ from the Paper Bill.
- f) In Platform and Loop BDT Invoices, some OCC record types differ from those in the Additions and Changes to Service section on the Paper Bill.
- g) On Resale BDT Invoices, certain *Optional Calling Plans* appear only at the summary level as a subtotal item.
- 28. We examined the Paper Bill to determine the summarization points and billing elements. Such detailed elements included, but were not limited to, recurring, non-recurring and fractional charges, Minutes of Usage (MOUs), Date, Time, Length of Call and Class of Service. A complete list of summarization points and billing elements is included in Exhibit A. We then obtained the BDT and corresponding Paper Bill from Verizon for each of the 25 selected BDTs during the first test period for purpose of making a comparison between the Paper Bill and the BDT.
- 29. In addition to the selection process that we previously described, our work on Assertion 1 included the following test procedures:
  - **Test 1.1:** At the detailed level of the BOS BDT bill, evaluate whether the BOS BDT contains the same detail as on the Paper Bill.

- **Test 2.1:** Determine whether the BDT contains the summarization points (or detail to derive the summarization points) currently available on the Paper Bill.
- **Test 2.2**: For each of the matching summarization levels (determined in test 2.1), evaluate whether the BOS BDT contains the same detail as on the Paper Bill.
- 30. The following methodology and detailed steps were performed to complete Tests 1.1, 2.1, and 2.2, above:
  - a) Created audit/matching templates in Microsoft Excel (a readily available software application) for each BDT service type: UNE-Loop, UNE-Platform, Resale, and Transport.
  - b) Reviewed BDT electronic invoices using Microsoft Access by parsing the record layouts and standards in accordance with BOS Version 36, an industry standard billing output specification.
    - Programmed Microsoft Access to specifically read the Virginia BDTs.
    - Developed queries to parse the BDT detail into a segmented readable format.
    - Performed a manual trace to match elements from the BDT to the Paper Bill.
  - c) Reviewed a selection of billing elements to determine whether the BDT contained the same elements as the Paper Bill.
  - Referenced and documented each selected element in both the BDT and
     Paper Bill to ensure the same is contained within both.
  - e) Reviewed each summarization point and billing element, by invoice, for consistency with the Paper Bill.

#### ASSERTION 2 - VALUE OF SUMMARIZATION POINTS AND BILLING ELEMENTS

31. The Company asserts the following:

The BDT has the same dollar value as the Paper Bill for the summarization points and billing elements contained in Exhibit A, (as asserted above) except for the following:

- a) Verizon's BDT Quality Review and Adjustment Process (the purpose of which is to insert an adjustment into the BDT if it does not initially equal the Paper Bill) creates adjustments to the BDT (which appear in the *Other Charges and Credits* section of the BDT), causing certain BDT billing elements and summarization points to be different from similar billing elements and summarization points on the Paper Bill; however, the total dollar value of the BDT is the same as the Paper Bill.
- b) In certain instances for Resale BDT Invoices, taxes associated with certain products were misallocated between state and local tax.
- 32. Our procedures included an examination of the dollar values of summarization points and billing elements contained on the BDT for purposes of tracing and matching those values to the Paper Bill for a selection of Verizon CLEC customers during the first test period. The BDT and corresponding Paper Bill were obtained from Verizon after completion of the BDT Quality Review and Adjustment Process for each selected customer. A complete list of summarization points and billing elements is in Exhibit A.
- 33. In addition to our sample selection process that we previously described, our work on Assertion 2 included the following test procedures:

- **Test 1.2:** At the detailed level of the BOS BDT bill, trace a selection of elements and associated dollar values on the BOS BDT to the Paper Bill and determine that they agree.
- **Test 2.3**: For each of the selected summarization points on the BOS BDT (determined in Test 2.1), trace the summarization points on the BOS BDT to the Paper Bill and ensure they contain the same dollar value.
- **Test 4.1**: Document the process used to adjust the BOS BDT.
- **Test 4.2**: Document and test the controls throughout the Quality Review and Adjustment Process (as documented in Test 4.1) that are in place to ensure that the BDTs are properly adjusted.
- 34. The following methodology and detailed steps were performed to complete Tests 1.2 and 2.3, above:
  - a) Created audit/matching templates in Microsoft Excel for each BDT service type: UNE-Loop, UNE-Platform, Resale, and Transport.
  - Reviewed BDT electronic invoices using Microsoft Access by parsing the record types in accordance with BOS Version 36.
    - Programmed Microsoft Access to specifically read the Virginia BDT.
    - Developed queries to parse the BDT detail into a segmented readable format.
    - Performed a manual trace to match values for the elements and summarization points from the BDT to the Paper Bill.
  - Reviewed a selection of billing elements to determine whether the BDT contained the same element as the Paper Bill.

- d) Documented and reviewed a selection of summarization level elements in both the BDT and Paper Bill to determine whether the same dollar value is contained within both.
- e) Reviewed a selection of billing elements, by invoice, and traced and matched the BDT amount against the Paper Bill.
- 35. The following methodology and detailed steps were performed to complete Test 4.1 above:
  - a) Interviewed key personnel involved in the BOS BDT Quality Review and Adjustment Process. Verizon personnel interviewed included: Director, Senior Manager, and Manager level personnel in the BDT Quality Team, Bill Reformatting System Production Support Group, Bill Reformatting System Application Development Group, and the Wholesale Billing Group.
  - b) Reviewed methods and procedures for the groups identified above.
  - c) Reviewed system flows for the Bill Reformatting System application.
  - d) Examined operations documentation for all Bill Reformatting System jobs and emergency methods and procedures in the event of unsuccessful file processing to determine whether proper operations documentation exists for these jobs.
  - e) Reviewed process flows for the BOS BDT Quality Review and Adjustment Process.
  - f) Obtained and reviewed Access Control Facility (ACF2) security rules and access rights to ensure the secured working files dataset that contains the adjusted file is restricted in the mainframe environment to appropriate Verizon personnel.

- g) Reviewed programmed "job" schedules run by the Bill Reformatting System

  Production Support Team to split the BDT file into individual BDTs.
- 36. In order to complete Test 4.2 (testing of the processes documented in Test 4.1), we selected 20 BDTs within the first test period and performed the following procedures:
  - a) Obtained worksheets created for each BDT that requires adjustment from the BDT Quality Team.
  - b) Examined documentation of adjustments to the BDT created by the BDT Quality Team and the corresponding adjustment file based on the worksheet obtained above.
  - c) Reviewed "job step" documentation to confirm that the original file and adjusted file are merged to create the "adjusted" BDT.
  - d) Obtained documentation that an independent member of the BDT Quality
     Team performs a second level of review of the adjustments.
  - e) Obtained documentation that Wholesale Billing Services performs an independent review to evaluate whether the adjusted BDT is in balance.
  - f) Obtained the corresponding tracking numbers (i.e., the NDM process number for files that are electronically transmitted or Airborne Express tracking number for tapes/cartridges that are mailed).
  - g) Examined the standard queries that were run against the file containing all the BDTs for a bill cycle. These queries are used by the BDT Quality Team to obtain "known" out of balances.

#### ASSERTION 3 - RECALCULATION OF BILLING ELEMENTS

37. The Company asserts the following:

The BDT contains a sufficient level of detail for a third party to recalculate specific elements contained in the BDT as detailed in Exhibit B, except for the following:

- a) Verizon's BDT Quality Review and Adjustment Process (the purpose of which is to insert an adjustment into the BDT if it does not initially equal the Paper Bill) creates adjustments to the BDT (which appear in the *Other Charges and Credits* section of the BDT) that do not provide detailed information to allow recalculation of the adjustment.
- b) In Resale BDT Invoices containing Key Connection Volume Discounts, some record type details are not present. However, the amount billed for the related charges on the BDT is the same as on the Paper Bill. On January 1, 2002, Verizon implemented a system fix which addressed this exception effective with the January 1, 2002 Bill Period.
- c) In certain instances for Resale, Platform, and Loop BDT Invoices, the billing elements in the Other Charges and Credits sections (OCCs) differ from those in the Additions and Changes to Service section on the Paper Bill. These differences include "from" and "through" dates and the charge type indicators.
- d) In Resale BDT Invoices, usage charges identified as *Usage Quantity Type Indicator* "17" contained no rate.
- e) In certain instances for Resale, Platform and Loop BDT Invoices, some *OCC* sections and some *Monthly Recurring Charges* sections contain a miscellaneous USOC, which applies to multiple descriptions and rates.

- f) On Resale BDT Invoices, certain Optional Calling Plans appear only at the summary level as a subtotal item.
- 38. Our procedures included the identification of elements from the BOS BDT by bill type that are necessary for the recalculation of bill amounts. This required billing information is detailed in Exhibit B. As part of our selection testing, each of the items listed in Exhibit B were traced to the BDT to verify their existence. Then, on a test basis, certain of these required elements were recalculated and checked for mathematical accuracy and reconciled to the BDT. As noted above, the scope of our examination was not intended or designed to test the completeness or accuracy of the billing information produced by the Company's billing system, because we understand the Company has already completed a third party test of the Paper Bill.
- 39. In addition to our sample selection process, our work on Assertion 3 included the following test procedures:
  - **Test 3.3**: For quality adjustments input into the BDT, validate the adjustment amount by tracing to source.
    - a) Obtained the BDT Adjustment Worksheets for five out of the 20 selected BDT files, and reviewed the adjustments made to the BDT. Note: Fifteen of the selected BDTs did not require an adjustment and therefore there were no worksheets to review.
    - Mapped every adjustment from the five BDT worksheets to root causes provided by Verizon.
  - **Test 4.1**: Document the process used to adjust the BOS BDT.
    - a) The methodology and detailed steps performed to complete Test 4.1 are outlined at Paragraph 35, above.

- **Test 4.2**: Document and test the controls throughout the Quality Review and Adjustment Process (as documented in Test 4.1) that are in place to ensure that the BDTs are properly adjusted.
  - a) The methodology and detailed steps performed to complete Test 4.2 are outlined in Paragraph 36, above.
- **Test 5.1**: List the billing elements that are required to validate a Paper Bill from Verizon, for all Bill Types (Exhibit B).
- **Test 5.2**: For the items listed in Exhibit B, check to ensure they are contained in the BOS BDT.
- **Test 5.3**: Recalculate a sample selection of elements from bills generated during the first test period to determine whether the recalculation can be performed. It should be noted that in some instances we were not able to recalculate an amount because a "rate" for the charge was not included on the BDT; however, in each instance, the BDT provided a Universal Service Order Code (USOC) which could be used by the CLEC to reference a tariff or interconnection agreement for the information needed to perform the recalculation.
- 40. The following methodology and detailed steps were performed to complete Tests 5.1, 5.2 and 5.3 above:
  - a) Reviewed and documented billing elements within each bill type: UNE-Platform,
     UNE-Loop, Resale, and Transport (Exhibit A).
  - b) Utilized Exhibits A and B and BOS Version 36 specifications to determine accurate calculations for bill balancing and re-calculation (see Exhibit B).
  - c) Performed re-calculations for a selection of "Billed Amounts" utilizing fields such as: USOC quantity, USOC Local Rate Amount, Local Usage Quantity, and Originating Unbundled Local Usage Rate.

#### ASSERTION 4 - INTERNAL CONSISTENCY OF BDT

41. The Company asserts the following:

The detailed billing records contained within the BDT are internally consistent in accordance with the criteria outlined in Exhibit C.

- 42. Our testing included verification of the internal consistency of the BDT in accordance with specific summarization and recalculation rules by bill type as detailed at Exhibit C. The Microsoft Access tool used for reading and analyzing the BDT files contains logic to check for internal consistency (i.e., detail properly sums to subtotal; subtotals properly sum to total). In addition, we selected one BDT per bill type from our test selection and re-performed the balancing and internal consistency calculations manually. Accordingly, we independently re-added the BDT bill through all the summarization points to check that the detail reconciled to the summary level totals. All summarization levels were tested, including dollar charges and minutes of use where relevant (see detail and summary levels by bill type at Exhibit C).
- 43. In addition to our selection process, our work on Assertion 4 included the following test procedures:
  - **Test 3.1**: Manually re-perform balancing calculation and compare the results to the Microsoft Access tool results for one BDT for each Bill type: Resale, UNE-Loop, UNE-Platform and Transport.
  - **Test 3.2:** Independently re-add the BOS BDT bill through all the summarization points and check that the BOS BDT balances with detail matching the summary levels of the BOS BDT bill using Microsoft Access.
  - Test 4.1: Document the process used to adjust the BOS BDT.

- a) The methodology and detailed steps performed to complete Test 4.1 are outlined at Paragraph 35, above.
- **Test 4.2**: Document and test the controls throughout the Quality Review and Adjustment Process (as documented in Test 4.1) that are in place to ensure that the BDTs are properly adjusted.
  - a) The methodology and detailed steps performed to complete Test 4.2 are outlined in Paragraph 36, above.
- 44. The following methodology and detailed steps were performed to complete Tests 3.1 and 3.2 above:
  - a) Developed Microsoft Access application to parse and load the BOS Version36 Bill Data Tape (BDT) files.
  - Individually parsed and loaded the selected Verizon BDTs (Test 3.2) into 94 separate tables in Microsoft Access.
  - c) Developed internal consistency rules (bill balancing logic) to test the internal consistency of the Resale, UNE-Loop, UNE-Platform, and Transport invoices.
  - d) Reviewed the internal consistency testing logic with Verizon Wholesale
     Billing Assurance Staff to validate the accuracy of the testing logic.
  - e) Built the internal consistency testing logic into the Microsoft Access application.
  - f) Generated an internal consistency testing report to identify any out of balances at the various detail and summary levels of the BDT (Exhibit C) for each bill type (Resale, UNE-Platform, UNE-Loop, and Transport).
  - g) For one BDT per bill type we utilized the same internal consistency testing logic and manually re-performed the internal consistency analysis and

- compared those results to the Microsoft Access application-generated report to validate the internal consistency testing logic and the functionality of the Microsoft Access application.
- Determined the root cause of the internal consistency exceptions and categorized the root causes.
- i) Reviewed the adjustments made to the BDT, and mapped the adjustments to all the various levels within the BDT to validate that adjustments did not impact the internal consistency of the BDT.

## **ASSERTION 5 – QUALITY ADJUSTMENTS**

45. The Company asserts the following:

For bill periods from December 16, 2001 to January 15, 2002, Verizon reconciled 39 BDT files for 24 CLECs to their equivalent Paper Bill for the same bill period. The absolute value of the adjustments made to the BDTs in order to balance to the Paper Bills, expressed as a percentage of the total current charges on the Paper Bills, was 0.0028%.

- 46. Our work on Assertion 5 included the following test procedures:
  - **Test 7.1:** Obtained a spreadsheet that detailed Adjustments as a Percentage of Current Charges for files processed in the time period under review. We tested the mathematical accuracy of the schedule.
  - **Test 7.2:** For a selection of 20 BDTs we compared the spreadsheet to source documentation:
    - Adjustments: Compared to Quality Review and Adjustment Worksheets for the BDTs that were adjusted.

• Current Charges: Compared to the BDT File and also to the Paper Bill.

#### **ASSERTION 6 - BDT TRANSMISSION AND TIMELINESS**

47. The Company asserts the following:

For bill periods from December 16, 2001 to January 15, 2002, Verizon reconciled and transmitted to CLECs a total of 39 BDT files. All BDTs were transmitted within the 10-business day standard.

48. Our work on Assertion 6 included the following test procedures:

**Test 6.1:** Obtain a listing of all BDTs that went through the Quality Review and Adjustment Process for the bill periods from December 16, 2001 through January 15, 2002. We obtained the following information for a selection of 20 BDTs:

- CLEC Name
- BAN Number
- Current Charges
- Bill Date
- Processed Date date that Quality Review and Adjustment Process was complete and final approval was given to release the BDT to the CLEC
- Transmission Date date BDT is ready to be distributed to the CLEC

**Test 6.2:** For each BDT identified in Test 6.1, we obtained a copy of the Quality Review and Adjustment Worksheet prepared by the Wholesale Billing Service group.

**Test 6.3:** For each BDT identified in Test 6.1, we obtained an audit trail of the processing checkpoints/approvals as noted in Paragraph 36.

**Test 6.4:** For BDT files that have been released in Test 6.1, we obtained a report of the successful transmission of the BDT and acknowledgement receipt returned from the CLEC for BDTs that go through the "NDM" (electronic file transfer) process. For CLECS that receive BDTs on tape or cartridge, we obtained the Airborne Express tracking number and verified on line the date the BDT was sent to the CLEC.

## B. Overview of General Methodology and Approach for the Second Test Period

- 49. Management indicated that in the month of February, certain system enhancements were implemented that management believed would address exceptions identified in management's assertions for the first test period as described above (see Paragraphs 16 through 48). The Company requested that PwC conduct a second evaluation of management's revised assertions (1 through 4), which corrected certain exceptions, for an additional period following the implementation of the system changes (February 3, 2002 through February 16, 2002 (the "second test period")). Based on the work plan developed for the first test period, PwC developed and executed a revised work plan for the second test period (the detailed steps in this revised work plan are described below). In order to address the specific exceptions previously identified, PwC extended the selection of certain transaction data and sample selections in executing the revised work plan to evaluate whether, as management described, the system enhancements had addressed the exceptions identified in management's assertions for the first test period.
- 50. For the second test period, Verizon asked PwC to independently examine its BOS BDT electronic billing medium used to bill CLECs in Virginia to support Verizon's assertions regarding:
  - The comparability of the BDT to the Paper Bill with regard to the level of detail and summarization points (Assertion 1);
  - The comparability of the BDT to the Paper Bill with regard to billing values for each level of detail and summarization points (Assertion 2);
  - The ability of the BDT to be recalculated by a third party (Assertion 3);
  - The internal consistency of the BDT (Assertion 4).

Assertions 1 through 4, which were evaluated in the second test period, are stated in the Report of Management Assertions, dated April 23, 2002, that is Attachment 2 to this declaration.

51. Our testing included examining 20 BDTs produced for the bill periods from February 3, 2002 to February 16, 2002 as a basis for reporting on Assertions 1 through 4 for the second test period.

# <u>Understanding of Methods and Procedures and Controls Surrounding BDT</u> Creation and CLEC Bill Processing

- 52. The scope of our examination included understanding, documenting and testing Verizon's methods and procedures and internal control structure surrounding the creation and validation of the electronic BDT files. As in the first test period, this understanding and the results of our test work provide the basis for our conclusions as to whether management's assertions are fairly stated in all material respects. These methods and procedures and the internal control structure include the Quality Review and Adjustment Process that is designed to validate the BDT and when necessary, adjust the BDT to the Paper Bills.
- 53. Our testing of the internal control structure included interviews of personnel, observations, and testing of the procedures and controls put in place.

#### Scope and Sample Selection

54. In order to report on Assertions 1 through 4, for the second test period, we selected a sample of 20 monthly BDTs issued during the second test period from a total population of 100 BDTs (23 of which are subject to the Quality Review and Adjustment Process as described in paragraph 20). Our selection provided

coverage of approximately 20% of the total population of BDTs or 90% of the total current charges during the second test period across all types of BDTs. Our selection ("the test selection") is comprised of the following types: UNE Loop; UNE Platform; Resale; and Transport. We believe that the selection size and composition is adequate to support our conclusions with regard to management's assertions (Assertions 1 through 4).

- 55. We requested and received copies of both the BDT and the Paper Bill for each selected invoice from the second test period. We also examined supporting documentation relating to adjustments made during the BDT Quality Review and Adjustment process.
- 56. Following is a summary, by management assertion, of the test procedures performed to support our conclusion with regard to the assertions for the second test period.

#### **ASSERTION 1 - SUMMARIZATION POINTS AND BILLING ELEMENTS**

57. The Company asserts the following (see Attachment 2):

The BOS Bill Data Tape ("BDT") electronic billing medium, which is consistent with the Telcordia Technologies Special Report SR1874 (the "BDT Guidelines") and implemented according to Verizon's December 22, 2000 Plan of Record, contains the summarization points (or detail to derive the summarization points) and billing elements currently available on the Paper Bill of Record ("Paper Bill") (as detailed in Exhibit A) except for the following:

a) In certain Platform and Loop BDT Invoices, some Other Charges and Credits
 (OCCs) record types differ from those in the Additions and Changes to
 Service section on the Paper Bill. On February 27, 2002, Verizon

- implemented a system fix to address this exception effective with the February 25, 2002 Bill Period.
- b) In certain instances for Platform BDT Invoices, the *End Office ID* on the total *Unbundled Usage* records is not being populated.
- c) On Resale BDT Invoices, certain *Optional Calling Plans* appear only at the summary level as a subtotal item.
- d) In certain instances for Resale, Platform and Loop BDT Invoices, some OCC sections and some Monthly Recurring Charges sections contain a miscellaneous USOC which applies to multiple descriptions and rates that differ from the Paper Bill.
- 58. We examined the Paper Bill to determine the summarization points and billing elements. Such detailed elements included, but were not limited to, recurring, non-recurring and fractional charges, Minutes of Usage (MOUs), Date, Time, Length of Call and Class of Service. A complete list of summarization points and billing elements is included in Exhibit A. We then obtained the BDT and corresponding Paper Bill from Verizon for each of the 20 selected BDTs during the second test period for purpose of making a comparison between the Paper Bill and the BDT.
- 59. In addition to the selection process that we previously described, our work on Assertion 1 included the following test procedures:
  - **Test 1.1:** At the detailed level of the BOS BDT bill, evaluate whether the BOS BDT contains the same detail as on the Paper Bill.
  - **Test 1.3**: Reviewed change control documentation and mainframe results comparing pre-system change and post system change outputs.
  - **Test 2.1:** Determine whether the BDT contains the summarization points (or detail to derive the summarization points) currently available on the Paper Bill.

- **Test 2.2**: For each of the matching summarization levels (determined in test 2.1), evaluate whether the BOS BDT contains the same detail as the Paper Bill.
- 60. The methodology and detailed steps performed to complete Tests 1.1, 2.1, and 2.2 are the same as in the first test period and described above in paragraph 30.
- 61. The following methodology and detailed steps were performed to complete Test 1.3 above:
  - a) Examined the system change request and noted the implementation date was effective for the February 25 bill period.
  - b) Observed that the corrective actions documented were implemented to address certain Platform and Loop BDT Invoices, in which some *Other Charges and Credits (OCC)* record types differ from those in the *Additions and Changes to Service* section on the Paper Bill.

#### ASSERTION 2 - VALUE OF SUMMARIZATION POINTS AND BILLING ELEMENTS

62. The Company asserts the following:

The BDT has the same dollar value as the Paper Bill for the summarization points and billing elements contained in Exhibit A (as asserted above), except for the following:

a) Verizon's BDT Quality Review and Adjustment Process (the purpose of which is to insert an adjustment into the BDT if it does not initially equal the Paper Bill) creates adjustments to the BDT (which appear in the *Other Charges and Credits* section of the BDT), causing certain BDT billing elements and summarization points to be different from similar billing elements and summarization points on the Paper Bill; however, the total dollar value of the BDT is the same as the Paper Bill.

- b) In certain instances for Resale BDT Invoices, taxes associated with certain products were misallocated between state and local tax.
- 63. Our procedures included an examination of the dollar values of summarization points and billing elements contained on the BDT for purposes of tracing and matching those values to the Paper Bill for a selection of Verizon CLEC customers during the second test period. The BDT and corresponding Paper Bill were obtained from Verizon after completion of the BDT Quality Review and Adjustment Process for each selected customer. A complete list of summarization points and billing elements is in Exhibit A.
- 64. In addition to our sample selection process that we previously described, our work on Assertion 2 included the following test procedures:
  - **Test 1.2:** At the detailed level of the BOS BDT bill, trace a selection of elements and associated dollar values on the BOS BDT to the Paper Bill and determine that they agree.
  - **Test 2.3**: For each of the selected summarization points on the BOS BDT (determined in Test 2.1), trace the summarization points on the BOS BDT to the Paper Bill and ensure they contain the same dollar value.
- 65. The methodology and detailed steps performed to complete Tests 1.2 and 2.3 are the same as in the first test period and described above in paragraph 34.

#### **ASSERTION 3 - RECALCULATION OF BILLING ELEMENTS**

66. The Company asserts the following:

The BDT contains a sufficient level of detail for a third party to recalculate specific elements contained in the BDT as detailed in Exhibit B, except for the following:

- a) Verizon's BDT Quality Review and Adjustment Process (the purpose of which is to insert an adjustment into the BDT if it does not initially equal the Paper Bill) creates adjustments to the BDT (which appear in the Other Charges and Credits section of the BDT) that do not provide detailed information to allow recalculation of the adjustment.
- b) On Resale BDT Invoices, certain *Optional Calling Plans* appear only at the summary level as a subtotal item.
- c) In certain instances for Resale, Platform and Loop BDT Invoices, some OCC sections and some Monthly Recurring Charges sections contain a miscellaneous USOC which applies to multiple descriptions and rates.
- 67. Our procedures included the identification of elements from the BOS BDT by bill type that are necessary for the recalculation of bill amounts. This required billing information is detailed in Exhibit B. As part of our selection testing, each of the items listed in Exhibit B were traced to the BDT to verify their existence. Then, on a test basis, certain of these required elements were recalculated and checked for mathematical accuracy and reconciled to the BDT. As noted above, the scope of our examination was not intended or designed to test the completeness or accuracy of the billing information produced by the Company's billing system, because we understand the Company has already completed a third party test of the Paper Bill.

- 68. In addition to our sample selection process, our work on Assertion 3 included the following test procedures:
  - **Test 3.3**: For quality adjustments input into the BDT, validate the adjustment amount by tracing to source.
  - a) Obtained the BDT Adjustment Worksheets for 1 out of the 20 selected BDT files, and reviewed the adjustments made to the BDT. Note: 19 of the selected BDTs did not require an adjustment and therefore there were no worksheets to review.
  - Mapped every adjustment from the BDT worksheet to root causes provided by Verizon.
  - **Test 5.1**: List the billing elements that are required to validate a Paper Bill from Verizon, for all Bill Types (Exhibit B).
  - **Test 5.2**: For the items listed in Exhibit B, check to ensure they are contained in the BOS BDT.
  - **Test 5.3**: Recalculate a sample selection of elements from bills generated during the second test period to determine whether the recalculation can be performed. It should be noted that in some instances we were not able to recalculate an amount because a "rate" for the charge was not included on the BDT; however, in each instance, the BDT provided a Universal Service Order Code (USOC) which could be used by the CLEC to reference a tariff or interconnection agreement for the information needed to perform the recalculation.
- 69. The methodology and detailed steps performed to complete Tests 5.1, 5.2 and 5.3 are the same as in the first test period and described above in paragraph 40.

#### ASSERTION 4 - INTERNAL CONSISTENCY OF BDT

70. The Company asserts the following:

The detailed billing records contained within the BDT are internally consistent in accordance with the criteria outlined in Exhibit C.

- 71. Our testing included verification of the internal consistency of the BDT in accordance with specific summarization and recalculation rules by bill type as detailed at Exhibit C. The Microsoft Access tool used for reading and analyzing the BDT files contains logic to check for internal consistency (i.e., detail properly sums to subtotal; subtotals properly sum to total). In addition, we selected one BDT per bill type from our test selection and re-performed the balancing and internal consistency calculations manually. Accordingly, we independently re-added the BDT bill through all the summarization points to check that the detail reconciled to the summary level totals. All summarization levels were tested, including dollar charges and minutes of use where relevant (see detail and summary levels by bill type at Exhibit C).
- 72. In addition to our selection process, our work on Assertion 4 included the following test procedures:
  - **Test 3.1**: Manually re-perform balancing calculation and compare the results to the Microsoft Access tool results for one BDT for each Bill type: Resale, UNE-Loop, UNE-Platform and Transport.
  - **Test 3.2:** Independently re-add the BOS BDT bill through all the summarization points and check that the BOS BDT balances with detail matching the summary levels of the BOS BDT bill using Microsoft Access.
- 73. The methodology and detailed steps performed to complete Tests 3.1 and 3.2 are the same as in the first test period and described above in paragraph 44.

# Overview of General Methodology and Approach for the Third Test Period

- 74. Management indicated that in the month of April, certain system enhancements were implemented that management believed would address exceptions identified in management's assertions for the second test period as described above (see Paragraphs 49 through 73). The Company requested that PwC conduct a third evaluation of management's revised assertions (1 through 4), which corrected certain exceptions, for an additional period following the implementation of the system changes (April 25, 2002 through May 7, 2002 (the "third test period")). Based on the work plan developed for the first and second test periods, PwC developed and executed a revised work plan for the third test period (the detailed steps in this revised work plan are described below). In order to address the specific exceptions previously identified, PwC extended the selection of certain transaction data and sample selections in executing the revised work plan to evaluate whether, as management described, the system enhancements had addressed the exceptions identified in management's assertions for the second test period.
- 75. For the third test period, Verizon asked PwC to independently examine its BOS BDT electronic billing medium used to bill CLECs in Virginia to support Verizon's assertions regarding:
  - The comparability of the BDT to the Paper Bill with regard to the level of detail and summarization points (Assertion 1);
  - The comparability of the BDT to the Paper Bill with regard to billing values for each level of detail and summarization points (Assertion 2);
  - The ability of the BDT to be recalculated by a third party (Assertion 3);
  - The internal consistency of the BDT (Assertion 4).

Assertions 1 through 4, which were evaluated in the third test period, are stated in the Report of Management Assertions, dated May 24, 2002, that is Attachment 3 to this declaration.

76. Our testing included examining 18 BDTs produced for the bill periods from April 25, 2002 to May 7, 2002 as a basis for reporting on Assertions 1 through 4 for the third test period.

# Understanding of Methods and Procedures and Controls Surrounding BDT Creation and CLEC Bill Processing

- 77. The scope of our examination included understanding, documenting and testing Verizon's methods and procedures and internal control structure surrounding the creation and validation of the electronic BDT files. As in the first and second test periods, this understanding and the results of our test work provide the basis for our conclusions as to whether management's assertions are fairly stated in all material respects. These methods and procedures and the internal control structure include the Quality Review and Adjustment Process that is designed to validate the BDT and, when necessary, adjust the BDT to the Paper Bills.
- 78. Our testing of the internal control structure included interviews of personnel, observations, and testing of the procedures and controls put in place.

## Scope and Sample Selection

79. In order to report on Assertions 1 through 4, for the third test period, we selected a sample of 18 monthly BDTs issued during the third test period from a total population of 141 BDTs (50 of which are subject to the Quality Review and Adjustment Process as described in paragraph 20). Our selection provided

- coverage of approximately 13% of the total population of BDTs or 76% of the total current charges during the test period across all types of BDTs. Our selection ("the test selection") is comprised of the following types: UNE Loop; UNE Platform; Resale; and Transport. We believe that the selection size and composition is adequate to support our conclusions with regard to management's assertions (Assertions 1 through 4).
- 80. We requested and received copies of both the BDT and the Paper Bill for each selected invoice from the third test period. We also examined supporting documentation relating to adjustments made during the BDT Quality Review and Adjustment process.
- 81. Following is a summary, by management assertion, of the test procedures performed to support our conclusion with regard to the assertions for the third test period.

# **ASSERTION 1 - SUMMARIZATION POINTS AND BILLING ELEMENTS**

- 82. The Company asserts the following (see Attachment 3):
  - The BOS Bill Data Tape ("BDT") electronic billing medium, which is consistent with the Telcordia Technologies Special Report SR1874 (the "BDT Guidelines") and implemented according to Verizon's December 22, 2000 Plan of Record, contains the summarization points (or detail to derive the summarization points) and billing elements currently available on the Paper Bill of Record ("Paper Bill") (as detailed in Exhibit A).
- 83. We examined the Paper Bill to determine the summarization points and billing elements. Such detailed elements included, but were not limited to, recurring, non-recurring and fractional charges, Minutes of Usage (MOUs), Date, Time, Length of

- Call and Class of Service. A complete list of summarization points and billing elements is included in Exhibit A. We then obtained the BDT and corresponding Paper Bill from Verizon for each of the 18 selected BDTs during the third test period for purpose of making a comparison between the Paper Bill and the BDT.
- 84. In addition to the selection process that we previously described, our work on Assertion 1 included the following test procedures:
  - **Test 1.1:** At the detailed level of the BOS BDT bill, evaluate whether the BOS BDT contains the same detail as on the Paper Bill.
  - **Test 2.1:** Determine whether the BDT contains the summarization points (or detail to derive the summarization points) currently available on the Paper Bill.
  - **Test 2.2**: For each of the matching summarization levels (determined in test 2.1), evaluate whether the BOS BDT contains the same detail as the Paper Bill.
- 85. The methodology and detailed steps performed to complete Tests 1.1, 2.1, and 2.2 are the same as in the first test period and described above in paragraph 30, except that BOS Version 37 was used in the third test period.

## **ASSERTION 2 - VALUE OF SUMMARIZATION POINTS AND BILLING ELEMENTS**

86. The Company asserts the following:

The BDT has the same dollar value as the Paper Bill for the summarization points and billing elements contained in Exhibit A (as asserted above), except for the following:

a) Verizon's BDT Quality Review and Adjustment Process (the purpose of which is to insert an adjustment into the BDT if it does not initially equal the Paper Bill) creates adjustments to the BDT (which appear in the Other

- Charges and Credits section of the BDT), causing certain BDT billing elements and summarization points to be different from similar billing elements and summarization points on the Paper Bill; however, the total dollar value of the BDT is the same as the Paper Bill.
- 87. Our procedures included an examination of the dollar values of summarization points and billing elements contained on the BDT for purposes of tracing and matching those values to the Paper Bill for a selection of Verizon CLEC customers during the third test period. The BDT and corresponding Paper Bill were obtained from Verizon after completion of the BDT Quality Review and Adjustment Process for each selected customer. A complete list of summarization points and billing elements is in Exhibit A.
- 88. In addition to our sample selection process that we previously described, our work on Assertion 2 included the following test procedures:
  - **Test 1.2:** At the detailed level of the BOS BDT bill, trace a selection of elements and associated dollar values on the BOS BDT to the Paper Bill and determine that they agree.
  - **Test 2.3**: For each of the selected summarization points on the BOS BDT (determined in Test 2.1), trace the summarization points on the BOS BDT to the Paper Bill and ensure they contain the same dollar value.
  - **Test 4.1**: Document the process used to adjust the BOS BDT.
  - **Test 4.2**: Document and test the controls throughout the Quality Review and Adjustment Process (as documented in Test 4.1) that are in place to ensure that the BDTs are properly adjusted.

- 89. The methodology and detailed steps performed to complete Tests 1.2, and 2.3 are the same as in the first test period and described above in paragraph 34, except that BOS 37 was used in the third test period.
- 90. The methodology and detailed steps performed to complete Test 4.1 is the same as in the first test period and described above in paragraph 35, except that the Verizon personnel interviewed in the third test period included: Manager level personnel in the BDT Quality Team, Bill Reformatting System Production Support Group, Bill Reformatting System Application Development Group, and the Wholesale Billing Group.
- 91. In order to complete Test 4.2 (testing of the processes documented in Test 4.1), we selected 13 BDTs within the third test period that are subject to the Quality Review and Adjustment Process from our original selection of 18 bills (Transport bills do not require this adjustment process) and performed the following procedures:
  - a) Obtained Daily Production Reports for the third test period from the BDT Quality Team that details those BDTs that required an adjustment with their corresponding amount.
  - b) For those BDTs within our sample selection that required an adjustment, obtained the respective Daily Production Report and determined that the amount from the Daily Production Report agreed to the BDT.
  - c) The procedures performed in the first test period and described in c through g of paragraph 36 were also performed in the third test period.

## ASSERTION 3 - RECALCULATION OF BILLING ELEMENTS

92. The Company asserts the following:

The BDT contains a sufficient level of detail for a third party to recalculate specific elements contained in the BDT as detailed in Exhibit B, except for the following:

- a) Verizon's BDT Quality Review and Adjustment Process (the purpose of which is to insert an adjustment into the BDT if it does not initially equal the Paper Bill) creates adjustments to the BDT (which appear in the *Other Charges and Credits* section of the BDT) that do not provide detailed information to allow recalculation of the adjustment.
- 93. Our procedures included the identification of elements from the BOS BDT by bill type that are necessary for the recalculation of bill amounts. This required billing information is detailed in Exhibit B. As part of our selection testing, each of the items listed in Exhibit B were traced to the BDT to verify their existence. Then, on a test basis, certain of these required elements were recalculated and checked for mathematical accuracy and reconciled to the BDT. As noted above, the scope of our examination was not intended or designed to test the completeness or accuracy of the billing information produced by the Company's billing system, because we understand the Company has already completed a third party test of the Paper Bill.
- 94. In addition to our sample selection process, our work on Assertion 3 included the following test procedures:
  - **Test 3.3**: For quality adjustments input into the BDT, validate the adjustment amount by tracing to source.

- a) Obtained the corresponding Daily Production Report for 4 out of the 13 selected BDT files, and reviewed the adjustments made to the BDT. Note: 9 of the selected BDTs did not require an adjustment.
- Mapped every adjustment, if applicable, from the BDT to root causes provided by Verizon.
- **Test 4.1**: Document the process used to adjust the BOS BDT.
  - a) The methodology and detailed steps performed to complete Test 4.1 are outlined at Paragraph 90, above.
- **Test 4.2**: Document and test the controls throughout the Quality Review and Adjustment Process (as documented in Test 4.1) that are in place to ensure that the BDTs are properly adjusted.
  - a) The methodology and detailed steps performed to complete Test 4.2 are outlined in Paragraph 91, above.
- **Test 5.1**: List the billing elements that are required to validate a Paper Bill from Verizon, for all Bill Types (Exhibit B).
- **Test 5.2**: For the items listed in Exhibit B, check to ensure they are contained in the BOS BDT.
- **Test 5.3**: Recalculate a sample selection of elements from bills generated during the third test period to determine whether the recalculation can be performed. It should be noted that in some instances we were not able to recalculate an amount because a "rate" for the charge was not included on the BDT; however, in each instance, the BDT provided a Universal Service Order Code (USOC) which could be used by the CLEC to reference a tariff or interconnection agreement for the information needed to perform the recalculation.

95. The methodology and detailed steps performed to complete Tests 5.1, 5.2 and 5.3 are the same as in the first test period and described above in paragraph 40, except that BOS Version 37 was used in the third test period.

#### **ASSERTION 4 - INTERNAL CONSISTENCY OF BDT**

96. The Company asserts the following:

The detailed billing records contained within the BDT are internally consistent in accordance with the criteria outlined in Exhibit C.

97. Our testing included verification of the internal consistency of the BDT in accordance

- with specific summarization and recalculation rules by bill type as detailed at Exhibit

  C. The Microsoft Access tool used for reading and analyzing the BDT files contains logic to check for internal consistency (i.e., detail properly sums to subtotal; subtotals properly sum to total). In addition, we selected one BDT per bill type from our test selection and re-performed the balancing and internal consistency calculations manually. Accordingly, we independently re-added the BDT bill through all the summarization points to check that the detail reconciled to the summary level
- 98. In addition to our selection process, our work on Assertion 4 included the following test procedures:

use where relevant (see detail and summary levels by bill type at Exhibit C).

totals. All summarization levels were tested, including dollar charges and minutes of

**Test 3.1**: Manually re-perform balancing calculation and compare the results to the Microsoft Access tool results for one BDT for each Bill type, Resale, UNE-Loop, UNE-Platform and Transport.

- **Test 3.2:** Independently re-add the BOS BDT bill through all the summarization points and check that the BOS BDT balances with detail matching the summary levels of the BOS BDT bill using Microsoft Access.
- **Test 4.1**: Document the process used to adjust the BOS BDT.
  - a) The methodology and detailed steps performed to complete Test 4.1 are outlined at Paragraph 90, above.
- **Test 4.2**: Document and test the controls throughout the Quality Review and Adjustment Process (as documented in Test 4.1) that are in place to ensure that the BDTs are properly adjusted.
  - a) The methodology and detailed steps performed to complete Test 4.2 are outlined in Paragraph 91, above.
- 99. The methodology and detailed steps performed to complete Tests 3.1 and 3.2 are the same as in the first test period and described above in paragraph 44, except that BOS 37 was used in the third test period.
- 100. This concludes our declaration.

I swear,	or verify,	that the f	oregoing i	s true an	d correct to	o the best	of my	knowled	ge,
informa	tion and b	elief.							

Executed on May 24, 2002

\_\_\_\_

William M. Cobourn Jr.

Partner, PricewaterhouseCoopers LLP

I swear, or verify, that the foregoing is true and correct to the best of my knowledge
information and belief.

Executed on May 24, 2002

Joseph C. Atkinson

Principal, PricewaterhouseCoopers LLP

I swear, or verify, that the foregoing is true and correct to the best of my knowledge
information and belief.
Executed on May 24, 2002

Kate Bluvol

Partner, PricewaterhouseCoopers LLP