COMMONWEALTH OF VIRGINIA, ex rel.

STATE CORPORATION COMMISSION

CASE NO. PUC000035

Ex Parte: In the matter of third-party testing of Operation Support Systems for Bell Atlantic-Virginia, Inc.

Project Leader Ruling Adopting Master Test Plan

May 31, 2000

On February 17, 2000, the Commission established this proceeding to conduct third-party testing of the operation support systems ("OSS") for Bell Atlantic-Virginia, Inc. ("Bell Atlantic")[1]. In its Initiating Order, the Commission, among other things, directed the third-party consultant, KPMG, to prepare a draft Master Test Plan for comprehensive testing of Bell Atlantic's OSS and to deliver the draft Master Test Plan to the Commission's project leader.[2] Furthermore, the Commission directed its project leader to distribute for comment KPMG's draft Master Test Plan to all local exchange companies certificated in Virginia and other interested persons.[3] Finally, the Commission delegated authority to its project leader to adopt a Master Test Plan after reviewing the comments filed by all interested persons.[4]

On March 29, 2000, KPMG provided the Commission's project leader with a draft Master Test Plan for the testing of Bell Atlantic's OSS. On March 31, 2000, the Commission's project leader issued a ruling seeking comments on KPMG's draft Master Test Plan. Copies of the ruling were mailed to everyone on the service list. In addition, the ruling and KPMG's draft Master Test Plan were transmitted electronically, via e-mail, to all persons expressing an interest in the proceeding. Copies of the ruling and KPMG's draft Master Test Plan were also posted on the Commission's web site.[5]

COMMENTS

On April 21, 2000, comments on KPMG's draft Master Test Plan were filed by Bell Atlantic; AT&T Communications of Virginia, Inc. ("AT&T"); the Office of Attorney General, Division of Consumer Counsel ("Attorney General"); Cox Virginia Telcom, Inc. ("Cox"); MCI

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[1] *Commonwealth of Virginia At the relation of the State Corporation Commission, Ex Parte: In the matter of third-party testing of Operations Support Systems for Bell Atlantic-Virginia, Inc.*, Case No. PUC000035, Order Initiating Testing, Assigning Project Leader and Calling for Proposed Master Test Plan and Performance Standards to be Developed by KPMG Peat Marwick (February 17, 2000) ("Initiating Order").

[2] *Id.* at 4.

[3] *Id.* at 5.

[4] *Id.* at 4.

[5] www.state.va.us/scc/division/puc/oss.htm.

WorldCom, Inc. ("WorldCom")[6]; and Covad Communications Company ("Covad"). A brief summary of these comments is provided below.

Bell Atlantic observes that KPMG's draft Master Test Plan for Virginia is the fifth test plan proposed by KPMG and is substantially the same test plan employed in New York, Massachusetts, Pennsylvania, and New Jersey. Nevertheless, Bell Atlantic advocates several suggested changes. First, Bell Atlantic maintains that it is critical that KPMG use information it has garnered in other jurisdictions and offers seven specific examples. Second, Bell Atlantic maintains that when KPMG identifies a defect in one of Bell Atlantic's systems, before reporting the defect as an Observation or Exception, KPMG should report the defect to the appropriate help desk. Third, Bell Atlantic points out that "SARTS" should be replaced with "special service." Fourth, Bell Atlantic offers corrections for several factual errors it found in Table VI-9, Key Characteristics of Billing Information for Resale and UNE Customers. Finally, Bell Atlantic recommends changing "bill period" to "bill cycle" for Test TVV9, Functional Carrier Bill Evaluation.

AT&T generally finds KPMG's draft Master Test Plan to be a fundamentally sound roadmap for testing Bell Atlantic's OSS. However, AT&T contends that KPMG's draft Master Test Plan is ambiguous on some important issues and should be amended to amplify or clarify those issues. Specifically, AT&T organized its comments into six broad issue groups. First, AT&T seeks clarification as to what will be tested and recommends fourteen systems and processes for testing. These systems and processes include: line sharing, UNE-P and xDSL loops, Enhanced Extended Loops ("EELs"), dark fiber, Local Service Ordering Guidelines Release 4 ("LSOG-4"), NetLink system, Common Object Request Broker Architecture ("CORBA") preordering system, electronic bonding for maintenance and repair, system updates, EDI as one of the application-to-application interfaces, geographic areas likely to be subject to local competition, the flow through to bills of transaction test changes, manual intervention, and ExpressTRAK.

Second, AT&T requests clarification of certain procedural and organizational ground rules to be utilized during the KPMG test. In this regard, AT&T asks for: (i) the posting of Observations on the Commission's web site, (ii) the opportunity for competitive local exchange companies ("CLECs") to comment on Observations, (iii) inclusion of all informal CLEC comments in KPMG's workpapers, (iv) the retesting of system problems fixed by Bell Atlantic as a result of an Observation, (v) the confinement of each Exception to one discrete issue, (vi) limitation of KPMG's use of information to that which is posted by Bell Atlantic on its wholesale services web site, (vii) the opportunity to file comments on any proposal to use the test results from other states, and (viii) specifications as to how and when the test will conclude.

Third, based on experience gained in New York, AT&T advises that Bell Atlantic be required to demonstrate that its OSS is ready and capable of handling future demand. Consequently, the Master Test Plan should utilize an 18-month forecast of expected CLEC traffic. Further, testing should include the volumes that Bell Atlantic's OSS must support

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[6] On April 28, 2000, WorldCom, filed a revised attachment with proposed additional test scenarios. The revised attachment is hereby incorporated into WorldCom's comments.

throughout its region. In addition, volume testing should include a root cause analysis for any problems detected, and should confirm that all notifiers, or confirmations, are provided on a timely basis. AT&T also recommends that KPMG evaluate the sufficiency of any tracking and management systems, and that volume testing include both batch and individual orders.

Fourth, AT&T proposes that KPMG's test be followed by a period of commercial availability during which KPMG would continue to monitor Bell Atlantic's OSS. AT&T contends that this post-test period should last ninety days, similar to procedures adopted in Pennsylvania.

Fifth, AT&T suggests revising the Master Test Plan to articulate a separate process and procedural review of Bell Atlantic's resource management plan. AT&T contends that Bell Atlantic has been unable to proceed with tests in Pennsylvania and Massachusetts because of staffing constraints created by the shifting of resources to address OSS problems in New York. Thus, AT&T questions whether Bell Atlantic has the staffing and training to support OSS in multiple states.

Finally, AT&T seeks clarification concerning the establishment of performance measures.

Similar to AT&T, the Attorney General addresses six areas in its comments. First, the Attorney General avers that it is not in the interest of consumers to rely on the test results from other jurisdictions. The concern of the Attorney General is that by waiving complete testing, unique problems with OSS in Virginia may go undetected until full-scale competition. Nonetheless, the Attorney General recognizes that in certain exceptional circumstances it may be appropriate to adopt the testing results of another jurisdiction.

Second, military testing should not exclude global remedies. Here, the Attorney General raises the concern that as KPMG discovers individual problems under its military-style test (*i.e.*, test until pass), Bell Atlantic may correct such problems on a piece-meal basis. The Master Test Plan should permit Bell Atlantic to implement more comprehensive and sustainable global solutions.

Third, the Attorney General recommends that KPMG prepare draft performance standards ("Metrics") that encompass its previous OSS testing experience. In particular, the Attorney General asks the bifurcation of proposed Metrics into "controversial" and "non-controversial" categories to facilitate resolution of especially important matters.

Fourth, the Attorney General voices concern over the use of qualitative as opposed to quantitative evaluation criteria. Based on its reading of KPMG's draft Master Test Plan, the Attorney General found that 179 of the 262 planned assessments are qualitative measures. The Attorney General observes that such a heavy reliance on qualitative measures holds the potential for strong disagreement among the participants.

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Fifth, the Attorney General supports maintaining the flexibility to modify the list of test scenarios throughout the testing process. The Attorney General finds such flexibility necessary to examine fully Bell Atlantic's OSS.

Finally, the Attorney General asks to be included among the participants. That is, the Attorney General seeks to be added to the list of audiences for the Master Test Plan. This list currently includes Bell Atlantic, CLECs, the Department of Justice ("DOJ"), and the Federal Communications Commission ("FCC").

Cox's principal concern lies with the testing scenarios and offers several suggested additions based on its experience as a facilities-based competitor. The additional test scenarios submitted by Cox include: (i) stand-alone number portability for both POTS and for a large multi-line customer; (ii) directory listings, including an initial directory listing and the deletion of an old listing; (iii) the process for updating the 911 database; (iv) interconnection trunk forecasting, ordering, and provisioning; and (v) interconnection trunk blocking maintenance and repair. Furthermore, Cox urges the Commission to commence the process to establish Metrics as soon as possible. Finally, Cox expresses its willingness and availability to participate in the testing of Bell Atlantic's OSS.

WorldCom finds KPMG's draft Master Test Plan to be deficient and advocates several modifications designed to render the test more meaningful and robust. First, WorldCom raises six general areas of concern. To its list of general concerns, WorldCom offers thirty specific changes to KPMG's draft Master Test Plan. Finally, WorldCom submits a list of additional test scenarios.

Regarding WordCom's general concerns, WorldCom asks KPMG to revise the draft Master Test Plan to specify that it will test LSOG4, or a later version, and that Bell Atlantic must address ECexpert prior to the beginning of the test. Second, WorldCom recommends that the test be truly "military" in nature, with retesting for all Exceptions. Also, included in this general concern is WorldCom's proposal for a period of commercial availability under KPMG's Observation.

Third, WorldCom maintains that KPMG must test thoroughly Bell Atlantic's ability to provision unbundled loops. Such tests must examine each step of the loop provisioning process and procedures for both voice grade loops and xDSL loops. Fourth, WorldCom asserts that KPMG's draft Master Test Plan should include a test for the ordering and the provisioning of line sharing by Bell Atlantic.

Fifth, WorldCom seeks clarification of language in KPMG's draft Master Test Plan that permits KPMG, with Commission approval, to rely on the results of testing from other jurisdictions. While WorldCom recognizes that it may be appropriate to rely on the results from other jurisdictions, WorldCom requests that it be given notice and an opportunity to comment on any such proposal by KPMG, similar to the process established in New Jersey.

The final general area of concern of WorldCom pertains to the process of defining, implementing, and testing Metrics. WorldCom endorses implementing final Metrics determined

by the collaborative process of Case No. PUC000026 prior to the start of testing. If testing begins before the collaborative process completes its work on Metrics, then WorldCom recommends that Metrics be added to the test via the change management procedures as such Metrics are developed by the collaborative. Moreover, WorldCom advocates including remedy plan calculations in its test of the adequacy of performance measures.

The specific language changes submitted by WorldCom, along with WorldCom's requested test scenarios, are each addressed below in the Discussion section of this ruling.

In its comments, Covad highlights the areas and procedures that it endorses for inclusion in the Master Test Plan. For example, Covad advises that KPMG test commercially significant volumes of loop orders and include stress testing; conduct a military style test; establish a ninety-day commercial monitoring period; compare Bell Atlantic's OSS to those of other incumbent local exchange companies ("ILECs") and recommend "best practices"; and rigorously test OSS functions needed to support xDSL services. Covad focused most of its comments on xDSL issues.

Covad stresses that KPMG's test needs to be as realistic as possible. KPMG must not gain access to information or Bell Atlantic personnel unavailable to CLECs. Based on its commercial experience in Virginia, Covad submits that at a minimum KPMG must analyze and test: (i) address validation, (ii) loop pre-qualification, (iii) clarifications or queries, (iv) confirmation of orders, (v) supplemental orders, (vi) receipt of Firm Order Commitments ("FOCs"), (vii) completion notices, (viii) jeopardy notification, (ix) order status, (x) facilities issues, (xi) pair swap process, (xii) cooperative testing, and (xiii) line sharing. Finally, Covad notes that in its New York tests, KPMG did not perform the actual integration of preordering and ordering. Covad proposes that for the Virginia test, KPMG should actually perform the task of integration.

DISCUSSION

OSS refers to the systems, databases, and personnel used by Bell Atlantic to provide services to customers in an accurate and timely manner as well as to ensure the quality of those services.[7]   The FCC consistently has found that nondiscriminatory access to OSS is a prerequisite to the development of meaningful local competition.[8] Moreover, in assessing whether CLECs have nondiscriminatory access to Bell Atlantic's OSS, the FCC has relied upon the results of independent third-party tests.

> The scope and depth of KPMG's review, and the conditions
> surrounding it, including KPMG's independence, military-style
> test philosophy, efforts to place themselves in the position of an

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[7] *In the Matter of Application by Bell Atlantic New York for Authorization Under Section 271 of the Communications Act To Provide In-Region, InterLATA Service in the State of New York*, CC Docket No. 99-295, FCC 99-404, at 6, n.12, (December 22, 1999) ("Bell Atlantic-New York 271 Order").
[8] *Id.* at ¶ 83.

actual market entrant, and efforts to maintain blindness when
possible, lead us to treat the conclusions in the KPMG Final Report
as persuasive evidence of Bell Atlantic's OSS readiness. As we
have said before, the persuasiveness of a third-party review is
dependent on the conditions and scope of the review. . . .
Nonetheless, were a third-party test less comprehensive, less
independent, less blind, and, therefore, less useful in assessing the
real world impact of a BOC's OSS on competing carriers, we
would not necessarily find it persuasive and may accord it less
weight than we do the KPMG Final Report.[9]

As described by KPMG, the Master Test Plan "describes the plan to evaluate BA-VA's
OSSs, interfaces and processes that enable CLECs to compete with BA-VA for customers' local
telephone service."[10] In designing the Master Test Plan, KPMG claims to have considered all
stages of the CLEC-Bell Atlantic relationship.[11] KPMG intends its Master Test Plan to provide
adequate breadth and depth to evaluate the entire CLEC/Bell Atlantic relationship under real
world conditions.[12]

For discussion purposes, the issues and suggested changes raised in the comments filed
by interested persons are grouped into seven broad categories. These categories include: (i) test
results from other jurisdictions, (ii) Metrics, (iii) a ninety-day commercial availability period,
(iv) testing procedures, (v) system tests, (vi) product tests, and (vii) other recommended changes.
These categories are examined individually below.

1. Test Results From Other Jurisdictions

Section III of KPMG's draft Master Test Plan states:

Because of KPMG's experience in the New York, Pennsylvania
and Massachusetts trials, there may be some portions of this test
that can be expedited. To the extent KPMG determines that any of
the testing completed for other jurisdictions is duplicative of any
specific portion of this test plan, KPMG, with the approval of the
SCC may rely on the results from the other jurisdictions rather than
conducting duplicative testing.

Most parties commented on this language. Bell Atlantic agreed with KPMG's proposed
language and offered seven specific examples of tests KPMG should not need to repeat in
Virginia. On the other hand, AT&T, the Attorney General, and WorldCom, suggested that the

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[9] *Id.* at ¶ 100.
[10] KPMG's draft Master Test Plan, at § II B.
[11] *Id.*
[12] *Id.* at § II C.

use of results from other jurisdictions should be limited to rare Exceptions and that CLECs[13] should be given notice and an opportunity to file comments whenever the use of results from other jurisdictions is considered.

KPMG's proposed language should be clarified to provide participants with more information as to when it may be appropriate to use the results from other jurisdictions. The use of results from other jurisdictions should be the "rare Exception." For example, results from other jurisdictions will not be used in place of transaction and product tests. Results from other jurisdictions will be used only in very limited circumstances such as when the Virginia test would be testing the exact same process that has already been tested in another jurisdiction. However, the Master Test Plan should not contain an advance listing of all instances in which results from other jurisdictions will be utilized in Virginia. Such decisions will be made during the tests, taking into considerations all relevant facts and circumstances. Moreover, CLECs and other interested parties will be given notice and an opportunity to comment. But, the notice and opportunity for comment will be provided informally through the course of weekly CLEC and plan administration calls and meetings.

2. Metrics

AT&T, the Attorney General, Cox, and WorldCom each sought clarification of the Metrics to be employed during the test. KPMG's draft Master Test Plan includes several "place holders" for Metrics, which were released to all interested parties for comment on April 28, 2000. Thus, interested persons submitted comments on KPMG's draft Master Test Plan without the benefit of draft Metrics. A separate ruling will address issues related to Metrics.

Nonetheless, it is appropriate at this time to outline the process for establishing Metrics for the Virginia test and to reconcile the Metrics adopted in this proceeding with the Metrics to be established in the collaborative, Case No. PUC000026.[14] In its Initiating Order in this proceeding, the Commission recognized that third-party testing of Bell Atlantic's OSS ultimately required a set of standards by which to measure Bell Atlantic's performance.[15] Therefore, the Commission directed KPMG to prepare a draft set of Metrics and delegated authority to the project leader to adopt Metrics, after reviewing the proposals and comments filed by interested persons.[16]

As described above, on April 28, 2000, draft Metrics were distributed to interested parties. After reviewing comments on the draft Metrics, as project leader, I will issue a ruling adopting Metrics for Bell Atlantic. These Metrics will be used to report Bell Atlantic's

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[13] The term "CLECs" in the context of KPMG's test may be read to include all interested persons other than Bell Atlantic, KPMG, and the Commission. Thus, included in this term are competitive local exchange carriers, data service providers, and the Attorney General.

[14] *Commonwealth of Virginia At the relation of the State Corporation Commission, Ex Parte: Establishment of a Collaborative Committee to Investigate Market Opening Measures.*

[15] Initiating Order at 4.

[16] *Id.*

performance and for KPMG's test until replaced by Metrics derived by the collaborative in Case No. PUC000026, or until otherwise amended or replaced by the Commission.

3. Commercial Availability Period

AT&T, WorldCom, and Covad asked that the Commission establish a ninety-day commercial availability period following KPMG's report on third-party testing. As AT&T describes it, such a period provides CLECs with the opportunity to "road-test" Bell Atlantic's OSS in a commercial setting.[17] KPMG would continue to monitor results and investigate problems during the commercial availability period. According to AT&T and WorldCom, the Pennsylvania Public Utility Commission has instituted a ninety-day commercial availability period as part of its § 271 Docket.[18]

In approving Bell Atlantic's § 271 application for New York, the FCC emphasized that actual commercial results were of greater probative value than third-party test results.

> The most probative evidence that OSS functions are operationally ready is actual commercial usage. Absent data on commercial usage, the Commission will consider the results of carrier-to-carrier testing, independent third-party testing, and internal testing in assessing the commercial readiness of a BOC's OSS.[19]

Bell Atlantic will report on actual commercial usage when it provides its monthly Metrics calculations and reports. Indeed, during the test, KPMG will perform several tests to verify and validate Metric standards, Metric documentation, Metric data collection and storage, Metric calculation and reporting, Metric filtering and integrity, and Metric change management.[20] The Commission's Staff will accompany, observe, and assist KPMG in all aspects of its Metrics related tests. By the end of KPMG's third-party test, the Staff will be monitoring Metrics, investigating problems and administering any performance assurance plans that may be in place.

Moreover, commercial activity by CLECs does not, or should not, wait for the conclusion of third-party testing of Bell Atlantic's OSS. Many CLECs currently are undertaking commercial activities within the Commonwealth. It is hoped that CLECs will increase their commercial activity as the test progresses and improvements are made to Bell Atlantic's OSS. All CLECs will be encouraged to report on their commercial experience during the course of the test. Consequently, I find no reason to institute a ninety-day period of commercial availability as recommended by AT&T, WorldCom, and Covad at this time. At the conclusion of this proceeding, the Commission likely will resume Bell Atlantic's 271 application, Case No. PUC960111. If, at that time, parties believe that more commercial data is necessary, then they may file motions with the Commission for additional time.

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[17] AT&T MTP Comments at 29.
[18] *Id.* at 30; WorldCom MTP Comments at 5-6.
[19] Bell Atlantic-New York 271 Order at ¶ 89.
[20] KPMG's draft Master Test Plan at § IV.

4. Test Procedures

Several of the comments concerned test procedures. Some of the comments requested changes in test procedures, while other comments sought clarification. Specifically, interested persons raised the following procedural issues: help desk reporting, retesting, geographic areas of competition, Observations, Observation comments, Exceptions, publicly available information, test conclusion, volume testing, root cause analysis, global remedies, qualitative criteria, and open test scenarios. A discussion for each issue is provided below.

a. Help Desk Reporting – In its comments, Bell Atlantic asks KPMG to contact its help desk when KPMG identifies a defect in one of its systems, prior to classifying the defect as either an Observation or an Exception.[21] Bell Atlantic points to four specific tests contained in KPMG's draft Master Test Plan where help desk reporting should be added.

I find that KPMG should inform Bell Atlantic's help desk when it detects a problem in Bell Atlantic's OSS, but should not be required to do so before filing an Observation or Exception. Such notification may facilitate resolving the problems uncovered by KPMG. Further, KPMG may report to Bell Atlantic's help desk after it files its Observation or Exception. As to the specific changes requested by Bell Atlantic in KPMG's draft Master Test Plan, no change is required for Test TVV1: POP Functional Evaluation, 1.6.2., and Test TVV2: POP Volume Performance Tests, 2.6.2., as both lists of activities already contain help desk notifications. For Test TVV8: Billing Functional Usage Evaluation, 8.6.2. Activity 8, and Test TVV9: Functional Carrier Bell Evaluation, 9.6.2. Activity 11, the language "and report any problems to the Billing Help Desk" should be added.

b. Retesting – AT&T and WorldCom recommend that KPMG's draft Master Test Plan provide for the retesting of any changes Bell Atlantic makes in its OSS as the result of an Exception or Observation by KPMG, or on its own volition.[22]

In its general description of testing procedures, KPMG's draft Master Test Plan states that KPMG will test any change to a process, system or document, and that KPMG will retest as appropriate.[23] Certainly, the Commission expects that the retesting of changes in Bell Atlantic's OSS to be the general rule. Nonetheless, there may be instances where Bell Atlantic's fix or change occurs after the conclusion of testing. Thus, rather than adopting a rigid, absolute rule in the Master Test Plan, the plan contains a general rule. Specific decisions on what will and will not be retested, or when KPMG's test ends will be made during the test. All interested parties will be given an opportunity to provide input, via CLEC and other administrative meetings, prior to such decisions being made. Therefore, I find that no change to KPMG's draft Master Test Plan is required for retesting.

c. Geographic Areas of Competitive Areas – AT&T advocates focusing transaction testing on those geographic areas most likely to be subject to competition for local

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[21] Bell Atlantic MTP Comments at 2-3.
[22] AT&T MTP Comments at 12, 17-18; WorldCom MTP Comments at 4-5.
[23] KPMG's draft Master Test Plan at § II B.

exchange services.[24] As written, KPMG's draft Master Test Plan indicates that KPMG will test multiple switch technology types, end-offices and geographic locations.[25]

The purpose of the third-party testing is to determine whether CLECs have nondiscriminatory access to Bell Atlantic's OSS regardless of the geographic areas within the state where the CLECs may choose to compete. Nondiscriminatory access should apply across Bell Atlantic's OSS and territory, and not just in geographic locations that may be more likely to be subject to competition. Consequently, all of Bell Atlantic's service area should be subject to KPMG's test. This proposed change should not be adopted.

      d. Observations – AT&T points out that there is no provision in KPMG's draft Master Test Plan for publicizing Observations, or problems identified by KPMG that might result in a negative finding in its final report.[26] Because Observations will be the subject of weekly status calls, which may be monitored by CLECs, AT&T advocates posting Observations on the Commission's web site similar to the processes followed in Pennsylvania and New Jersey.[27] I agree with AT&T that Observations should be posted on the Commission's web site and find that KPMG's draft Master Test Plan should be modified to reflect this change.

      e. Observation Comments – AT&T maintains that CLECs should be permitted to provide informal comments on Observations and that all informal comments submitted by CLECs should become a part of KPMG's workpapers.[28]

CLEC participation is vital to the success of KPMG's test. CLECs will have the opportunity to offer informal comments during weekly CLEC/KPMG/Commission conference calls or meetings and may file informal comments with KPMG and the Commission at any time during the tests. Indeed, the third-party testing of Bell Atlantic's OSS is intended to be an open process. During the course of the test, any interested person may raise questions or provide comments to the Commission's project leader. Accordingly, I find that KPMG's draft Master Test Plan should be amended to reflect that CLECs will be permitted to file informal comments on Observations. Any informal comments filed by CLECs during the course of KPMG's test will become a part of its workpapers. However, I see no need to change KPMG's draft Master Test Plan to specify the content of KPMG's workpapers.

      f. Exceptions – WorldCom seeks changes to KPMG's draft Master Test Plan to make the Exceptions process more formal, requiring comments to be filed in writing and to end the test only after all Exceptions are resolved satisfactorily.[29] AT&T recommends that each Exception address only one issue.[30] According to KPMG's draft Master Test Plan, an Exception is created when KPMG determines that "one of Bell Atlantic's practices, policies, or systems

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[24] AT&T MTP Comments at 12-13.
[25] KPMG's draft Master Test Plan at § VI D.
[26] AT&T MTP Comments at 15-16.
[27] *Id.*
[28] *Id.* at 16-17.
[29] WorldCom MTP Comments at 4-5.
[30] AT&T MTP Comments at 18.

characteristics is not expected to satisfy one or more of the evaluation criteria, and thus would result in a negative finding in the final report."[31] Furthermore, KPMG's draft Master Test Plan provides that Exceptions will be placed on the Commission's web site and that CLECs may provide "input informally to the SCC."[32] This provides for an open process by which CLECs may provide information to the Commission in a variety of forms. As with Observations, CLEC input may be written or oral, and submitted at any time.

As to requiring that all Exceptions be resolved satisfactorily, such a requirement may be impractical. While the test is designed to be a military-style test in which testing continues until satisfactory results are obtained, decisions regarding the resolution of Exceptions primarily rests upon Bell Atlantic. For example, Bell Atlantic may decide not to resolve a specific Exception, opting instead to wait for the release of new software. KPMG would note the negative finding in its report. Such findings will then be considered by the Commission, and eventually the FCC, in relation to Bell Atlantic's § 271 application. In addition, the Commission will track and monitor Metrics, and likely will adopt a performance assurance plan. Failure by Bell Atlantic to resolve a problem with its OSS could trigger payments or other penalties under a performance assurance plan. Therefore, I disagree with WorldCom's request to make the Exceptions process more formal.

Regarding the recommendation by AT&T that each Exception address only one issue, this will be adopted as the general rule, but not as an absolute requirement.

g. Publicly Available Information – KPMG's draft Master Test Plan states that "KPMG and any subcontractors will use publicly available documentation and support mechanisms to develop its interfaces."[33] AT&T contends that "publicly available" should be defined as only documentation that is posted to Bell Atlantic's wholesale services web site.[34]

While I agree that the Commission must monitor and verify that KPMG relies on only publicly available information, I find AT&T's proposed language to be too restrictive. Bell Atlantic's wholesale services web site may not contain all publicly available information upon which KPMG may rely. Moreover, KPMG may discover that it relied on information that is not public. Such a situation would likely create an Observation or Exception until Bell Atlantic makes the information public. Therefore, I decline to adopt this recommended change.

h. Test Conclusion – AT&T maintains that KPMG's draft Master Test Plan should prescribe procedures for concluding the test.[35] According to AT&T, KPMG's draft Master Test Plan fails to provide "specifications of how and when the test will finish."[36] AT&T

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[31] KPMG's draft Master Test Plan at § II B.
[32] *Id.*
[33] *Id.* at § II E.
[34] AT&T MTP Comments at n.22.
[35] *Id.* at 22-23.
[36] *Id.* at 22.

further criticizes the use of an arbitrary test completion date and asks that CLECs be given an opportunity to comment on KPMG's report before it is finalized.[37]

Contrary to AT&T's comments, each test outlined in KPMG's draft Master Test Plan includes exit criteria.

> Exit criteria are the requirements that must be met before the tests defined in the Test Plan can be concluded.
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> 1. All required test activities must be completed.
>   For each test, all fact finding and analysis activities must be completed. All results and test methodologies have been documented.
>
> 2. All change control, verification and confirmation steps have been completed.
>   The results of test activities must be documented and reviewed for accuracy. Any results that require clarification or follow-up are confirmed.
>   In addition to these global exit criteria, test-specific exit criteria, where applicable, are defined within each test.[38]

Also contrary to AT&T's comments, KPMG's draft Master Test Plan does not contain a test completion date. Finally, the Commission's Initiating Order already provides for the procedures to be followed at the conclusion of this proceeding. Interested persons will have an opportunity to file comments on KPMG's final report. The Commission's project leader then will make a final report to the Commission. Presumably, the Commission will restart Bell Atlantic's § 271 application, Case No. PUC960111, providing all interested persons with the opportunity to comment on, among other things, KPMG's test and the operation of Bell Atlantic's OSS. Therefore, I find that the procedures already contained in KPMG's draft Master Test Plan should not be changed.

i. Volume Testing – AT&T offered several comments and suggestions concerning volume testing. First, AT&T urges changing KPMG's draft Master Test Plan which provides for "reasonably foreseeable" forecasted volumes to an eighteen-month period.[39] Second, AT&T asserts that volume testing should include the volumes that Bell Atlantic's OSS must support throughout its region.[40] Finally, AT&T submits that volume testing should include both batch and individual order submissions.[41]

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[37] *Id.*

[38] KPMG's draft Master Test Plan at § III F 2.

[39] AT&T MTP Comments at 24.

[40] *Id.*

[41] *Id.* at 28-29.

Volume testing by KPMG will be a function of assessments of capacity planning and forecasted volumes provided by the CLECs and Bell Atlantic. Thus, arbitrarily choosing an eighteen-month forecast may be inappropriate if the life of the underlying software being tested is only twelve months. KPMG's draft Master Test Plan language providing for "reasonably foreseeable" forecasted volumes allows for a matching of capacity planning and forecasted volumes.

As to AT&T's suggestions that volume testing should include volumes that Bell Atlantic's OSS must support throughout its region and volume testing should include both batch and individual order submissions, to the extent these recommendations correspond to reasonably foreseeable conditions of Bell Atlantic's OSS that will affect CLECs operating in the Commonwealth, they should be reflected in the test. Therefore, I find that KPMG's draft Master Test Plan should be amended to reflect regional volumes and both batch and individual orders, if appropriate.

        j. Root Cause Analysis – AT&T and WorldCom request a root cause analysis of any problems detected and corrected during volume testing.[42] I find this request to be outside the scope and purpose of third-party testing. Bell Atlantic is responsible for its OSS and any required changes or corrections.

        k. Global Remedies – Along a similar vein, the Attorney General maintains that KPMG's testing should not exclude global remedies.[43] The Attorney General reasons that as KPMG discovers problems with Bell Atlantic's OSS, the test process may encourage Bell Atlantic to employ a series of "patches" when a more comprehensive or global fix may prove more prudent.[44] While I share the Attorney General concern, as discussed above, Bell Atlantic is responsible for and must manage its OSS. Moreover, KPMG's third-party test represents only the first step in our oversight of Bell Atlantic's OSS. After the test, Bell Atlantic's performance will continue to be monitored through the reporting of Metrics and through the performance assurance process. Thus, Bell Atlantic has incentive to employ global remedies where appropriate.

        l. Qualitative Criteria – The Attorney General's analysis of KPMG's draft Master Test Plan revealed that of the 262 assessments listed in the plan, 179 of those were qualitative.[45] The Attorney General suggests that wherever possible, qualitative evaluation criteria should be replaced or complemented with parity or quantitative assessments.[46]

KPMG's draft Master Test Plan does not contain a listing of all of the performance Metrics that will be used to gauge the performance of Bell Atlantic's OSS. This may contribute to the Attorney General's concern that KPMG may rely too heavily upon qualitative evaluation criteria. Nonetheless, KPMG has reviewed its draft Master Test Plan to determine if quantitative

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[42] *Id.* at 25; WorldCom MTP Comments at 5.
[43] Attorney General MTP Comments at 3-5.
[44] *Id.*
[45] *Id.* at 7-8, Appendix A.
[46] *Id.* at 7.

assessments may be substituted or added to tests currently employing a qualitative assessment. Based on this review, KPMG proposes adding quantitative criteria for the following: (i) documentation of metrics definitions and documentation of standards,[47] (ii) process claim,[48] (iii) post closure information (inspection technique only),[49] (iv) data transmission and cartridge tape delivery to CLEC,[50] (v) retrieve and re-transmit daily usage backup data,[51] and (vi) access billing information (timeliness and accuracy of the delivery).[52]

In addition, KPMG proposes to change the criteria to quantitative for each of the following: (i) record severity code,[53] (ii) file claim (timeliness of response),[54] (iii) returned usage processing,[55] (iv) provision of status for all returned records,[56] and (v) corrective actions.[57] Finally, KPMG recommends removal of the quantitative criteria for the responsiveness and completeness of Help Desk support.[58] Based on a review of the above recommendations by KPMG, I find that these changes should be made to KPMG's draft Master Test Plan.

    m. Open Test Scenarios – The Attorney General emphasizes and concurs that additional test scenarios may be added to KPMG's draft Master Test Plan.[59] The test will be subject to modifications, based upon new information or experience gained by KPMG and upon input from interested parties.

5. System Tests

AT&T and WorldCom sought clarification regarding specific systems to be tested by KPMG. For example, AT&T asked that KPMG test the following systems:

    (i) Dark Fiber Inventory;[60]
    (ii) LSOG-4;[61]
    (iii) NetLink;[62]
    (iv) CORBA;[63]

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[47] KPMG's draft Master Test Plan at § IV D 1.4, Table IV-1

[48] *Id.* at § V D 12.4, Table V-12.

[49] *Id.*

[50] *Id.* at § V D 14.4, Table V-14.

[51] *Id.*

[52] *Id.* at § V D 15.4, Table V-15.

[53] *Id.* at § V D 12.4, Table V-12.

[54] *Id.*

[55] *Id.* at § V D 13.4, Table V-13.

[56] *Id.*

[57] *Id.*

[58] *Id.* at § VI D 1.4, Table VI-2.

[59] Attorney General MTP Comments at 8.

[60] AT&T MTP Comments at 8.

[61] *Id.* at 8-9.

[62] *Id.* at 10.

[63] *Id.* at 10-11.

(v)   Electronic Bonding for Maintenance and Repair;[64]

(vi)   the flow of transaction tests to the billing systems;[65]

(vii)   manual intervention;[66]

(viii) ExpressTRAK;[67]

(ix)   notifiers;[68]

(x)   order tracking;[69] and

(xi)   capacity management.[70]

WorldCom's comments address LSOG-4 and electronic bonding for maintenance and repair.[71]

Of the systems listed above, NetLink, the flow of transaction tests to the billing systems, manual intervention, ExpressTRAK, notifiers, order tracking, and capacity management already are included in KPMG's draft Master Test Plan and will be subject to testing. For dark fiber inventory, KPMG will test and assess the preorder capability of Bell Atlantic's OSS at the time of the test. This does not require a change in KPMG's draft Master Test Plan.

KPMG's draft Master Test Plan states that the test "will be conducted using the most current release of the LSOG ordering and preordering business rules available and fully functional at the time of the test."[72] Both AT&T and WorldCom ask that KPMG's draft Master Test Plan be amended to clarify that KPMG will test LSOG-4. I agree that the Master Test Plan should clarify that KPMG will not test an LSOG release prior to LSOG-4. If LSOG-5 or a later version is available and fully functional at the time of the test, then KPMG will use the later version of LSOG.

Two items not included in KPMG's draft Master Test Plan are (i) CORBA, which is an application-to-application interface for preordering functions utilized by AT&T and (ii) electronic bonding for maintenance and repair. These items are discussed separately below.

        a. CORBA – Generally, there are three interfaces or means by which CLECs may submit preorder queries to Bell Atlantic. These include (i) the Internet-based graphical user interface ("Web GUI"), (ii) Electronic Data Interchange ("EDI"), and CORBA. The Web GUI is the easiest and least expensive of the three alternatives to implement and is used by the majority of CLECs. EDI is based on industry adopted standards, provides electronic access to Bell Atlantic's OSS, and is used by most non-web GUI CLECs. CORBA provides direct electronic application-to-application bonding with Bell Atlantic's OSS. Only AT&T utilizes CORBA, and only AT&T has requested testing of CORBA.

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[64] *Id.* at 11.

[65] *Id.* at 13.

[66] *Id.* at 13-14.

[67] *Id.* at 14.

[68] *Id.* at 25-26.

[69] *Id.* at 26-28.

[70] *Id.* at 31-32.

[71] WorldCom MTP Comments at 2-4, 11.

[72] KPMG's draft Master Test Plan at § VI D 1.4.

In support of its request, AT&T proposes that the Commission adopt the basic principle that KPMG's test include all interfaces that are available for use by any CLEC. As outlined by the Commission in its Initiating Order, KPMG's test should accomplish two goals. First, the test provides an assessment of whether Bell Atlantic provides nondiscriminatory access to its OSS in satisfaction of its § 271 requirements.[73] Second, the test provides a "laboratory" in which to test, develop, and implement solutions to the ordering and provisioning obstacles currently faced by CLECs operating in the Commonwealth.[74] Both of these goals can be obtained without testing all interfaces available for use by any CLEC. That is, CORBA is being utilized by AT&T in New York, but it was not part of KPMG's New York test. In processing Bell Atlantic-New York's § 271 application, the FCC indicated that it was aware of the use of CORBA.[75] Nonetheless, the FCC granted Bell Atlantic-New York's § 271 application. In this case, Bell Atlantic has not requested CORBA testing, indicating that Bell Atlantic believes that such testing is not required for § 271 approval.

Furthermore, AT&T has provided no evidence that it has or is likely to experience problems with its CORBA interface in Virginia. Thus, at this stage, I find that CORBA should not be made part of KPMG's test. However, Metrics will be established to track the performance of CORBA during and after the test. If other CLECs move to implement CORBA, or if CORBA fails to meet performance Metrics, then KPMG's test may be modified to include CORBA testing.

b. Electronic Bonding for Maintenance and Repair – KPMG's draft Master Test Plan provides that the Web GUI interface is the only interface that will be evaluated for maintenance and repair.[76] Industry standards have not been developed for an EDI-type interface with Bell Atlantic's wholesale maintenance and repair OSS. Consequently, most CLECs use the Web GUI interface. The Web GUI is the only interface that provides full functionality of access to wholesale maintenance and repair OSS. By contrast, electronic bonding for wholesale maintenance and repair OSS, as requested by AT&T and WorldCom is a derivative of their long distance access businesses and fails to provide full access to all required maintenance and repair functionality. Moreover, these interfaces are proprietary and not open to all CLECs. Therefore, I find that electronic bonding for maintenance and repair should not be included in KPMG's test.

6. Product Tests

Most persons filing comments sought clarification of the products and scenarios to be tested. Most of these comments contained references to specific products or scenarios, and offered support for their inclusion if KPMG failed to provide for their testing. Whether a product or scenario is tested is dependent on whether Bell Atlantic is required to provide the product or service on a wholesale basis in the Commonwealth.

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[73] Initiating Order at 2.

[74] *Id.*

[75] Bell Atlantic-New York 271 Order at n.227.

[76] KPMG's draft Master Test Plan at § II E.

As of this point in time, this Commission has chosen not to expand the FCC's list of wholesale products and services that Bell Atlantic must provide to CLECs. Accordingly, I find that KPMG should be required to test only those products and services required by the FCC or are otherwise offered by Bell Atlantic. Following this rule, requests for testing of enhanced extended loops ("EELs") with concentration using GR 303 functionality, which is not offered by Bell Atlantic in Virginia, should not be added to KPMG's test. On the other hand, the FCC has approved line sharing where Bell Atlantic retains voice service. Therefore, this limited form of line sharing should be added to KPMG's draft Master Test Plan.

Consequently, KPMG's test will include the following products: (i) Line Sharing;[77] (ii) UNE-P;[78] (iii) xDSL;[79] (iv) stand-alone LNP;[80] (v) initial directory listing;[81] (vi) 911 process evaluation;[82] (vii) interconnection trunk forecasting, ordering, provisioning, and blocking;[83] and (viii) loop provisioning.[84] Each of these represents wholesale products offered by Bell Atlantic and utilized by CLECs in the Commonwealth.

Finally, WorldCom attached a table of additional test scenarios. The table below lists each proposed scenario and whether the proposed scenario is: (i) included or should be included in KPMG's test, or (ii) excluded from KPMG's test. Following the table is a discussion of WorldCom's proposed scenarios excluded from KPMG's test.

	Stand-alone Preorder			
Scenario Number	_Address Validation_	Res.	Bus.	Test Status
11	By TN	X	X	Included
12	By full address	X	X	Included
13	By ECCKT	X	X	_Excluded_
14	By name of a business		X	_Excluded_
15	By field address and detailed service address	X	X	Included
16	By TN of a non-published account	X	X	Included
17	By TN of a non-listed account	X	X	Included
18	By the fielded service address of a multi-line c.	X	X	Included
19	By a TN for a multi-line customer	X	X	Included
20	By a fielded address of a customer who has 2 lines at a multi-tenant location	X	X	_Excluded_
21	By a partial match within a multi-tenant location	X	X	_Excluded_
22	By a service address that contains a special char.	X	X	Included

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[77] _See_, AT&T MTP Comments at 4-6; WorldCom MTP Comments at 7-8.

[78] _See_, AT&T MTP Comments at 6-7.

[79] _See, Id._; WorldCom MTP Comments at 6-7; Covad MTP Comments at 4-6.

[80] _See_, Cox MTP Comments at 1-2.

[81] _See, Id._ at 2.

[82] _See, Id._ at 3.

[83] _See, Id._

[84] _See_, WorldCom MTP Comments at 6-7; Covad MTP Comments at 6-8.

Scenario Number	Telephone Number Reservation	Res.	Bus.	Test Status
23	For a TN based on fielded address inquiry	X	X	Included
24	Exchange a TN	X	X	Included
25	Conversational TN	X	X	Included
26	Direct TN	X	X	Included
27	For a TN based on a specific TN	X	X	Included
28	For a sequential set of TNs		X	Included
29	For a range of TNs		X	Included
30	For a vanity number using the REQNUM field	X	X	Included

Scenario Number	Customer Service Record (CSR) Inquiry	Res.	Bus.	Test Status
31	For a single line account	X	X	Included
32	For a multi-line account	X	X	Included
33	Parsed format where SA & LA contain different values	X	X	Excluded
34	Parsed format for a customer with additional listing	X	X	Included
35	Parsed format for a non-published account	X	X	Included

Scenario Number	Due Date Availability	Res.	Bus.	Test Status
36	Select a due date	X	X	Included
37	Change a due date	X	X	Included
38	Cancel a due date	X	X	Included
39	Reserve a due date for one year in advance	X	X	Excluded

Scenario Number	Directory Listing Inquiry	Res.	Bus.	Test Status
40	Straight line listing	X	X	Included
41	Non-listed listing	X	X	Included
42	Caption listing	X	X	Included
43	All 1st Level sub-caption listings	X	X	Included
44	Non-published listing	X		Included

Scenario Number	Installation Status Inquiry	Res.	Bus.	Test Status
45	Using serial number format	X	X	Included
46	Using CLEC PON	X	X	Excluded
47	Using ILEC service order ID	X	X	Included
48	Using TN	X	X	Excluded

Scenario Number	*Loop Qualification Inquiry*	Res.	Bus.	Test Status
49	By service address	X	X	Included
50	By TN	X	X	Included
51	Re-grade an existing account	X	X	Included

Scenario Number	*Product Service Availability*	Res.	Bus.	Test Status
52	By service address	X	X	*Excluded*
53	By WTN	X	X	*Excluded*
54	By NPANXX	X	X	Included
55	By NPANXXLINE	X	X	Included
56	By ECCKT	X	X	*Excluded*
57	By CLLI	X	X	*Excluded*

	Order				
Scenario Number	*UNE*	R & B An Lp	Res. ADSL	Bus. HDSL	Bus. DS1	Test Status
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1	Migrate lines from ILEC w/o number portability		X	X		*Excluded*
2	Migrate lines from ILEC with LNP		X	X		*Excluded*
6	New customer		X	X		Included
7	Disconnect (full)		X	X		Included
7	Disconnect (partial)		X	X		Included
8	Moves (inside)		X	X		*Excluded*
8	Moves (outside)		X	X		Included
11	Convert from UNE-P to UNE loop		X	X		*Excluded*
11	Convert from Resale to UNE loop		X	X		*Excluded*
10	Convert ADSL to HDSL		X	X		*Excluded*
16	Convert line to ISDN	X				Included
9	Migrate As Is with a Directory Listing Change		X	X		*Excluded*
9	Add a new Directory Listing on existing account	X	X	X		Included
17	Add DID service				X	*Excluded*
18	Changes to DID service				X	*Excluded*
19	Migration of an account that has ILEC Initiated Blocking	X	X	X		*Excluded*
20	Migration of an account that has a pending ILEC service order	X	X	X		*Excluded*

21	Partial migration of a multi-line account	X	X	X		Included – An. Loop only
22	Migration of an account that has an existing ILEC term/vol. K.	X	X	X	X	*Excluded*
23	Establish new CLEC end user account with req. for Vanity #	X	X	X		*Excluded*

Scenario Number	*UNE-P*	Res. POTS	Bus. POTS	Res. ISDN	Bus. ISDN	Test Status
7	Directory change			X	X	Included
8	Telephone number change			X	X	Included
11	Inside Move			X	X	Included
11	Outside Move			X	X	Included
13	Migrate from CLEC to ILEC			X	X	*Excluded*
14	Convert from Resale to UNE-P			X	X	Included
15	Convert XDSL to UNE-P	X	X	X	X	*Excluded*
16	Add and Changes to DID service	X	X	X	X	*Excluded*
4	Full and Partial Migration w/Directory Listing	X	X	X	X	Included
3	Add wide variety of features	X	X	X	X	Included
17	Change PIC/LPIC	X	X	X	X	Included
18	Add XDSL with line sharing	X	X			*Excluded*
19	Migration of an account that has existing ILEC term/vol. K		X		X	*Excluded*
20	Migration of an account that has a pending ILEC service order	X	X	X		*Excluded*
21	Migration of an account that has ILEC Initiated Blocking	X	X	X		*Excluded*

Scenario Number	*UNE EEL*	Res. An. Loop	Bus. An. & DS1	Test Status
6	Convert line to xDSL	X	X	*Excluded*
7	Convert special access to UNE-EEL		X	*Excluded*

Scenario Number	*Resale*	Res.	Bus.	Test Status
14	Change PIC	X	X	Included
15	Change LPIC	X	X	Included

Requested preorder scenarios, excluded from the test, fall into one of three categories. The first category pertains to scenarios that fail to fit within current business rules. Simply put, Bell Atlantic is neither required to nor voluntarily provides the requested service. Preorder scenarios outside current business rules include: (i) address validation by ECCKT and by name

of business; (ii) customer service record inquiry with a parsed format where SA & LA contain different values; (iii) installation status inquiry using CLEC PON and TN; and (iv) product service availability by service address, WTN, ECCKT, and CLLI.

The second category of excluded preorder scenarios includes scenarios that cannot be constructed for testing purposes. KPMG's test bed accounts are not established at real locations. Thus, address validations by fielded address for a customer with two lines at a multi-tenant location and by a partial match within a multi-tenant location are excluded from KPMG's test.

The third category of excluded preorder scenarios is for scenarios that fail to fit within the scope or design of KPMG's test. More specifically, WorldCom's request to test the due date availability where a due date is reserved one year in advance cannot be tested because KPMG's test is designed to last only a few months.

Ordering scenarios were excluded for one of three reasons. The first reason for exclusion is that the requested scenario does not correspond to an option or service currently offered by Bell Atlantic. For example, WorldCom suggests several scenarios concerning migration to xDSL services. But, Bell Atlantic offers migration to xDSL only on new installations. Therefore, the following WorldCom recommended ordering scenarios were excluded: (i) migration of lines from an ILEC without number portability, (ii) migration of lines from an ILEC with number portability, (iii) conversion from UNE-P to UNE loop, (iv) conversions from resale to UNE loop, (v) conversion from ADSL to HDSL, (vi) migrate as is with a directory listing change, (vii) partial migration of an ADSL or HDSL multi-line account, (viii) conversion of xDSL to UNE-P, and (ix) adding xDSL with line sharing under UNE-P.[85] Similarly, DID service is not offered by Bell Atlantic in Virginia. Instead, Bell Atlantic provides a Digital Handoff service, which is included in KPMG's test. Thus, scenarios involving DID service have been excluded.

The second reason for excluding WorldCom's proposed ordering scenarios relates to the requested scenario being unsuited for testing. Included in this group are: (i) inside moves, which involve the change of location within a building with no service address change; (ii) establishing a new CLEC end user account with a requirement for a vanity number, which are provisioned with CLEC numbers and not a test of Bell Atlantic's OSS; (iii) migration from CLEC to ILEC, which does not involve an order transaction sent to Bell Atlantic's OSS; (iv) conversion of an EEL to xDSL, which entails technical problems; and (v) conversion of special access to UNE EEL, which is beyond the local service breadth of the test.

The third reason for excluding one of WorldCom's ordering scenarios is the proposed test requires a live account. By contrast, KPMG's test is comprised of test customer accounts. Accordingly, scenarios that require live customer accounts were excluded. These UNE and

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[85] WorldCom's proposed scenarios may be read to refer to the migration of an existing xDSL service to another carrier. If that is the case, KPMG's test would be limited to observation of actual conversions. Based upon the lack of activity in this area, under current conditions such observations would be impractical. However, if market conditions change before the end of KPMG's test, such observations may be added to the test.

UNE-P scenarios include: (i) migration of an account that has ILEC initiated blocking; (ii) migration of an account that has a pending ILEC service order; and (iii) migration of an account that has an existing ILEC term or volume discount.

7. Other Specific Changes

Several interested parties offered other specific changes to KPMG's draft Master Test Plan. Bell Atlantic made three recommendations. First, Bell Atlantic advised that "SARTS" should be changed to "special service."[86] Second, Bell Atlantic offered corrections to Table VI-9.[87] Finally, Bell Atlantic suggested changing "bill period" to "bill cycle" in § VI D 9.6.[88] I find that Bell Atlantic's first two proposed changes should be made. However, "bill period" and "bill cycle" are defined terms within KPMG's draft Master Test Plan. The only change required related to this item is that references should be provided to the precise definition of these terms.

AT&T proposes changing the language of PPR-5[89] to include EDI as one of the application-to-application interfaces to be tested.[90] Because EDI is an application-to-application interface, this proposed change is unnecessary and should not be made.

The Attorney General seeks to be listed among the audience for the MTP.[91] I find that this change should be made to KPMG's draft Master Test Plan.

Finally, WorldCom offered a series of specific changes to KPMG's draft Master Test Plan. While some of the issues raised by WorldCom are addressed above, all of WorldCom's proposed changes are listed below along with whether such recommendations should be adopted.

> p. 4, last sentence – add "from BA-VA" to the partial sentence that reads "The TTG is an array of technologies, which enable transactions to be submitted and received." This addition conforms the Virginia MTP to the New Jersey MTP.[92]

I find that this change should be made to KPMG's draft Master Test Plan.

> p. 5, first bullet point under "E. Assumptions" – add "Electronic Bonding will be evaluated for Maintenance and Repair."[93]

As discussed above, electronic bonding for maintenance and repair will not be made part of KPMG's test at this time.

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[86] Bell Atlantic MTP Comments at 3.

[87] *Id.*

[88] *Id.* at 4.

[89] KPMG's draft Master Test Plan § V D 5.1.

[90] AT&T MTP Comments at 12.

[91] Attorney General MTP Comments at 9.

[92] WorldCom MTP Comments at 11.

[93] *Id.*

> p. 10, "Test Transaction Generator" – In other states, the TTG is
> defined as Hewlett Packard, also known as the pseudo-CLEC. If
> the TTG is going to be Hewlett Packard, or whatever company it
> will be, this should be defined in the MTP.[94]

A decision has not been made as to the identity of the TTG. Thus, no change is required at this time.

> p. 11, "CLEC Involvement in Transaction Testing" – In other states,
> in addition to periodic face-to-face meetings with CLECs, KPMG
> hosts weekly conference calls with the CLECs. The Virginia
> process should be amended to include such weekly conference calls
> with the CLECs.[95]

This passage should be changed to read, "Additionally, KPMG plans to host regular meetings, including weekly conference calls, with interested CLECs to address questions and keep them appraised of the project status."

> p. 15, "1.0 Entrance Criteria," number 3 "The SCC has adopted a
> set of test metrics" – add the following language at the end of the
> paragraph that is consistent with the language included in the New
> Jersey MTP: "These Metrics must be fully functional, tested and
> operationally ready in Virginia. Fully functional BA-VA
> measurements are required to support collection of test results and
> to ensure a method exists to monitor ongoing compliance. With
> assistance from KPMG, the Commission will assess the
> operational readiness of all required BA-VA measurements and
> verify that all requirements have been met."[96]

I disagree with this proposal. To establish an entrance criteria, or precondition, that Metrics be fully functional, tested and operationally ready before beginning a test, which includes the testing of Metrics, creates a "Catch-22." At best, such a requirement would delay testing to the disadvantage of CLECs that have already begun offering competitive service.

> p. 16, "Table III-3 Global Entrance Criteria" – add the following
> criterion after "test metrics have been adopted" – "The
> Commission has verified that the adopted Metrics are operational
> in Virginia." The responsible party is the SCC. This addition is
> consistent with language included in the New Jersey MTP.[97]

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[94] *Id.*

[95] *Id.* at 12.

[96] *Id.*

[97] *Id.*

As discussed in the last item, no change should be made to the criteria. However, I agree that the SCC should be listed as the responsible party for adopting test Metrics.

> p. 29, "A. Purpose," last sentence in that paragraph – change the words "comparable to" to "in parity with." The standard for nondiscriminatory access to OSS is parity not comparability.[98]

While the FCC's standard is parity, Metrics passing muster with the FCC have included standards such as "parity plus 4 seconds."[99] Thus, for purposes of the Master Test Plan, no change in language is required for this item.

> p. 45, "Table V-8 Test Target: Manual Order Process" - "acknowledgments" should be added to the 4th sub-process "Delivery of confirmations and competitions." Therefore, it should read, "Delivery of confirmations, completions and acknowledgments."[100]

I find that this proposed change should be made to KPMG's draft Master Test Plan.

> p. 48, "Table V-9 Test Target: POP Work Center/Help Desk Support" – The process that BA-VA trains its customer service representatives ("CSR") and updates its representatives on changes to the process must be tested. Therefore, under "Manage the Help Desk" a sub-process of training and updating CSRs should be added; the "Evaluation Measure" should be adequacy, consistency, and completeness of practices; the "Evaluation Technique" should be inspection and document review; and the "Criteria Type" is qualitative. This is important because in other states, Bell Atlantic often claims to fix problems by retraining its CSRs. Therefore, the validity of its retraining process must be examined. See Exception 22 in Pennsylvania OSS test.[101]

I find that Table V-9 should be modified to include the training of CSRs.

> p. 49, "10.1 Description" – The process of "Jeopardy Notification" by BA-VA must be evaluated and should be added to the list of areas.[102]

I find that this proposed change should be made to KPMG's draft Master Test Plan.

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[98] *Id.*

[99] Bell Atlantic-New York 271 Order at ¶ 146-47.

[100] WorldCom MTP Comments at 12.

[101] *Id.*

[102] *Id.*

pp. 50-51, "Table V-10 Test Target: Provisioning Process Parity" – "Jeopardy Notification" should be added as a "sub-process."[103]

I find that this proposed change should be made to KPMG's draft Master Test Plan.

p. 53, "Table V-11 Test Target: Provisioning Coordination Process" – "Jeopardy Notification" should be added as a "sub-process."[104]

I find that this proposed change should be made to KPMG's draft Master Test Plan.

pp. 54-55, "12.2 Objectives," 3rd and 4th bullets – Add the requirement of "accuracy" to all reviews.[105]

This section of KPMG's draft Master Test Plan describes a process test. The accuracy of bill data is addressed elsewhere in KPMG's draft Master Test Plan. Thus, this recommended change should not be made.

p. 57, "Table V-12 Test Target: Billing Work Center/Help Desk Support" – The process that BA-VA trains its customer service representatives ("CSR") and updates its representatives on changes to the process must be tested. Therefore, under "Manage the Help Desk Process" a sub-process of training and updating CSRs should be added; the "Evaluation Measure" should be adequacy, consistency, and completeness of practices; the "Evaluation Technique" should be inspection and document review; and the "Criteria Type" is qualitative.[106]

I find that this proposed change should be made to KPMG's draft Master Test Plan.

pp. 66-67, "Table V-17 Test Target: Work Center Support Evaluation" – Need to add Process Area of "Manage the Work Center Process" with sub-processes of Management Oversight, CSR Training, and CSR Update/Change Notification Process.[107]

The test described by WorldCom is already part of KPMG's test. Consequently, this proposed change should not be made.

p.74, "1.3 Entrance Criteria" table – Add criterion of "BA-VA application to application interfaces tested and deemed

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[103] *Id.*
[104] *Id.*
[105] *Id.* at 13.
[106] *Id.*
[107] *Id.*

satisfactory" as third criterion and add KPMG as the responsible party. This addition is consistent with a provision in the New Jersey MTP.[108]

The test described by WorldCom is already part of KPMG's test. Consequently, this proposed change should not be made.

> p. 77, "Table VI-1 POP Processes" – Ordering, 2nd sub-process thereunder should read "Submit and order for the migration of a customer from BA-VA to a CLEC 'as specified.'"[109]

I find that this proposed change should be made to KPMG's draft Master Test Plan.

> p. 77, "Table VI-1 POP Processes" – Provisioning, 2nd sub-process should be revised to acknowledge that there are two types of completion notifications that CLECs must receive. These are Provisioning Completion Notices ("PCN") and Billing Completion Notices ("BCN").[110]

Completion notices for this item include both PCNs and BCNs. Therefore, no change is required to KPMG's draft Master Test Plan.

> p. 77, "Table VI-2 POP Evaluation Measures" – Does the term "accessibility" of the GUI include measurement of its availability? Will this measure capture when the GUI is unavailable for use? If not, the availability of the GUI should be measured on a qualitative basis.[111]

This table in KPMG's draft Master Test Plan should be modified to clarify that the term "accessibility" includes the measurement of its availability and that this measure captures when the Web GUI is unavailable for use.

> p. 78, "Table VI-2 POP Evaluation Measures" – Add the requirement of "accuracy" to the Evaluation Measure "Responsiveness and completeness of Help Desk Support." Accuracy of responses will help determine the quality of training the Help Desk Personnel receive.[112]

This table in KPMG's draft Master Test Plan should be clarified.

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[108] *Id.*

[109] *Id.*

[110] *Id.*

[111] *Id.*

[112] *Id.*

> p. 79, "1.6.3 Output," item 6 – Clarify that "completion notices"
> includes both PCNs and BCNs tracked separately.[113]

Completion notices for this item include both PCNs and BCNs. Therefore, no change is required to KPMG's draft Master Test Plan.

> p. 80, "2.1 Description" – The Virginia MTP specifies that peak
> and stress will be conducting by "scaling" up the volumes from the
> lower volumes. The New Jersey MTP does not require such
> scaling. MCI WorldCom does not believe that scaling volumes is
> appropriate because it serves to give BA-VA advance warning that
> a period of peak or stress testing is approaching. Therefore, the
> provisions allowing for scaling up the volumes should be
> removed.[114]

KPMG does not believe that the scaling up of volumes provides Bell Atlantic any advance warning that a period of peak or stress testing is approaching. Moreover, WorldCom and other CLECs will be able to monitor and comment on the specifics of KPMG's stress tests during its test. Accordingly, this proposed change should not be made.

> p. 81, "Table VI-3 POP Volume Performance Evaluation
> Measures" – Does the term "accessibility" of the GUI include
> measurement of its availability? Will this measure capture when
> the GUI is unavailable for use? If not, the availability of the GUI
> should be measured on a qualitative basis.[115]

This table in KPMG's draft Master Test Plan should be modified to clarify that the term "accessibility" includes the measurement of its availability and that this measure captures when the Web GUI is unavailable for use.

> p. 82, Section VI.2.6.2.9 – MCI WorldCom requests clarification
> of the example provided within the parentheses.[116]

The confusing example should be eliminated from KPMG's draft Master Test Plan.

> p. 97, "Table VI-10: Test Scope for Carrier Bill Evaluation" – For
> Verify Billing Accounts Process Area, MCI WorldCom requests
> clarification on whether this process will include mapping
> component accounts to the Master Billing Account Numbers.[117]

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[113] *Id.*

[114] *Id.* at 13-14.

[115] *Id.* at 14.

[116] *Id.*

[117] *Id.*

When KPMG verifies billing accounts, part of its test will be to ensure that sub- or component accounts are received on the bill records. Thus, no change is required to KPMG's draft Master Test Plan.

> p. 97, "Table VI-10: Test Scope for Carrier Bill Evaluation" – For the Bills and Delivery Process Area, MCI WorldCom requests that KPMG verify circuit Ids and Universal Service Ordering Codes.[118]

When KPMG verifies normal recurring charges, this verification will include a check of features and circuits to ensure that bills reflect only what KPMG has ordered on the test accounts. Thus, no change is required to KPMG's draft Master Test Plan.

> p. 97, "Table VI-10: Test Scope for Carrier Bill Evaluation" – For Bills and Delivery Process Area, if there are any charges based on usage KPMG needs to verify the minutes of use data provided by BA-VA.[119]

As stated in the table, KPMG will verify the completeness and accuracy of all usage data. Thus, no change is required to KPMG's draft Master Test Plan.

> p. 97, "Table VI-10: Test Scope for Carrier Bill Evaluation" – For Bills and Delivery, MCI WorldCom requests that KPMG verify no taxes billed as a sub-process.[120]

As part of its bill validation tests, KPMG will verify that all aspects of the bills are correct, including taxes. Therefore, no change is required to KPMG's draft Master Test Plan.

> p. 107, Appendix B – The reference to "time periods" in the second paragraph should refer to a specific time period as is done in the New Jersey MTP. Also, the volumes for the peak test and stress test are different than those expressed in the New Jersey MTP. There is no reason for the difference. Therefore, MCI WorldCom requests that the New Jersey volume levels be used (e.g., 150% for peak test and 250% for stress test).[121]

As discussed earlier in regards to volume testing, volume testing by KPMG will be a function of assessments of capacity planning and forecasted volumes provided by CLECs and Bell Atlantic. Use of a specific time period or volume may preclude a matching of capacity planning and forecasted volumes.

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[118] *Id.*

[119] *Id.*

[120] *Id.*

[121] *Id.*

CONCLUSION

In summary, I adopt KPMG's draft Master Test Plan, adjusted and modified as described above, to be used as a guideline of the comprehensive testing of Bell Atlantic's OSS. For ease of comparison, Attachment A provides a table tracing all changes made to KPMG's draft Master Test Plan. The Master Test Plan to be used for this test will be distributed via e-mail and will be posted to the Commission's OSS web page.

_____
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Hearing Examiner/Project Leader

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Virginia MTP Changes

Description of Change	MTP Location
Replaced the word Draft with Final	Cover page
Added approval date and final document to approval and version control tables.	Tables I-2 and I-3
Section II – B, Military style test, clarified language on exception process	Section II-B
Added the fact that both observations and exceptions will be posted on the SCC's web site	Section II-B, Military Style Test
TGG- added language to complete sentence indicating that transactions will be with BA-VA	Section II – D - TGG
Added the Office of the Attorney General as a participant on the audience list	Section II – D
Clarified KPMG's position regarding the reliance of results from other jurisdictions	Section III – Test Plan Framework
Test Plan Framework, added the notion that regional volumes may be considered for volume and stress testing	Section III – D-2.0
Table III – 3, remove KPMG as one of the responsible parties for metrics adoption	Table III –3
Section III-C, CLEC involvement, added a statement to indicate that weekly conference calls will be held with the CLECs	Section III -C
Add Criteria Type of Quantitative for Documentation of Metrics Definitions and Documentation of Standards	PMR 1, Table IV – 1
Added a bullet to the PPR5 test to include 911	Section 5.1, PPR5
Table V-8, added sub-process for acknowledgements	Table V-8
Table V-9, added training and updating of CSRs to the managing the help desk process	Table V-9
PPR10, added a bullet for jeopardy notification	PPR10, section 10.1
PPR10&11, Tables V-10 and V-11, added sub process of jeopardy notification	PPR10 & 11, Tables V-10 & V-11
PPR12, Table V-12, added a sub-process for CSR training	PPR12, Table V-12
Change the Criteria Type to Quantitative for the following sub-processes: Record severity code, File Claim (Timeliness of Response)	PPR12, Table V – 12
Add Criteria Type of Quantitative to the Sub-process Process Claim and Post Closure Information (Inspection technique only)	PPR12, Table V – 12
Removed PPR13 in its entirety. Per KPMG's billing team, this test was designed for a process that experience has shown does not exist and not required by the CLECs thereby making the test invalid.	PPR13

Description of Change	MTP Location
Made minor correction to Table V-14 to add the word 'or' to the Data Transmission Sub-process	Was Table V-14, is now table V-13
Add Criteria Type of Quantitative for the sub-processes Data transmission and cartridge tape delivery to CLEC and Retrieve and re-transmit Daily Usage backup data	Was PPR14, Table V – 14 is now PPR13, Table V – 13
Add Criteria Type of Quantitative for the process Request Re-send	Was PPR15, Table V – 15 is now PPR14, Table V – 14
Added network blocking as a test criteria to PPR18	Was Section 19.2, PPR19; is now Section 18.2, PPR 18
Added network blocking to Table V-18	Was table V-19 is now table V-18
TVV1, on entrance criteria table added that application-to-application interface tested and deemed satisfactory to begin testing	TVV1, section 1.3
TVV1, added language to indicate that it is KPMG'' expectation that it is at a minimum version 4 of LSOG that will be getting tested	TVV1, section 1.4
Table VI-1, Changed wording to correct error changing customer to CLEC	Table VI-1
Tables VI-1.2 and VI-3, added availability to GUI and EDI test	Tables VI-1.2 & VI-3
Remove Quantitative Criteria Type for Evaluation Measure Responsiveness and completeness of Help Desk support	TVV1, Table VI – 1.2
Removed example as it was confusing and did not add any value to the MTP test description	Section VI-2.6.2, was item 9, is item 10
TVV2, added that missing responses will be reported to help desk	TVV2, Section 2.6.2
Changed SARTS to Special Services on Table VI-4 (M&R RETAS Functional Evaluation)	Was Table VI-4, is now Table VI-5
TVV8 section 8.5 added that a subset of Appendix A scenarios will be tested	TVV 8, section 8.5
TVV8, section 8.6, various language changes were made per the billing team's input to make this section more accurate	TVV8, section 8.6
TVV8, added that problems identified will be reported to the billing help desk	TVV8, section 8.6.2
TVV9, added that discrepancies will be reported to billing help desk	TVV9, section 9.6.2
Made various changes to Table VI-9 to correct the information on the table per input from Bell Atlantic	Table VI-9

Description of Change	MTP Location
TVV9, section 9.1, replaced "price" with "rate"	TVV9, section 9.1
TVV9, section 9.2 removed the reference to resellers and CLECs in the next to last bullet	TVV9, section 9.2
TVV9, section 9.6.3, removed item number 3 on the list that formally read "A report showing each test case, expected results and discrepancies"	TVV9, section 9.6.3
Add reference to Appendix F (Glossary) for definition of Bill Period	TVV9, Section 9.6
Added a column for standalone number portability and a row for number portability.	Appendix A, UNE Table
Added a row for new a customer using line sharing and indicated that this test will be done for both Res & Bus xDSL capable loops	Appendix A, UNE Table
Added a line for migrating an existing customer to a line shared loop and indicated that this test will be run for both Res and Bus xDSL capable loops	Appendix A, UNE Table
Added outside move and disconnect from Res and Bus xDSL capable loops	Appendix A, UNE Table
Indicated that a test will be run for purchasing lines for a new Res and Bus xDSL customer	Appendix A, UNE Table
Indicated that dark fiber IOF will be ordered	Appendix A, UNE Table
Added a column for Digital Handoff and indicated that we will do this test for a new customer and for a migrate as is.	Appendix A, UNE-P Table

Added the following to Res and Bus ISDN:
     Feature change to an existing customer
     Telephone number change
     Directory change
     Moves
     Convert from resale to UNE-P
	Appendix A, UNE-P Table

Added to the Centrex tests feature changes, adding lines to an existing customer and disconnects.	Appendix A, UNE-P Table
Added a column for Digital Handoff. And indicated that we will do this test for a migrate as is, for adding lines to an existing customer and for disconnects.	Appendix A Resale Table
Revised headings on UNE EEL table to read Res loops and Bus loops	UNE EEL table
Changed PBX to read Digital Handoff on the M&R table	Stand alone M&R table
Clarify definitions of Bill Period and Bill Cycle in Glossary	Appendix F
Changed copyright statement in all headers.	Throughout
Removed copyright statement in all footers.	Throughout
Removed the word 'draft' from cover page and all footers	Throughout