New England Telephone and Telegraph Company

d/b/a Bell Atlantic

DIRECT TESTIMONY

OF

Amy Stern

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Q. Please state your name and background.

A. My name is Amy Stern and I am employed by Bell Atlantic as Director – Telecom Industry Services for the entire Bell Atlantic service area. I am responsible for product development and product management of Bell Atlantic's unbundled loop products, including BS-MA's unbundled line sharing and xDSL loop and ancillary services offerings.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is threefold. First, I describe and explain the Digital Subscriber Line ("DSL") and Line Sharing tariff filed by Bell Atlantic-Massachusetts ("BA-MA") on May 5, 2000. As demonstrated below, BA-MA's proposed tariff is consistent with the requirements established by the Federal Communications Commission ("FCC") for implementing Line Sharing, as set forth in its December 9, 1999, Order.

Second, I respond to concerns raised by Covad Communications Company ("Covad") in its petition for arbitration, filed on April 26, 2000, regarding proposed amendments to its interconnection agreement to include Line Sharing as an unbundled network element ("UNE"). Because that Petition raises the same line sharing issues as in BA-MA's proposed tariff filing, the proceedings have, in effect, been consolidated for purposes of

investigating those issues. Finally, I respond to comments filed by other competitive local exchange carriers ("CLECs") concerning BA-MA's proposed DSL and Line Sharing tariff to the extent those CLEC comments are not addressed in my discussion of Covad's arbitration issues.

My testimony does not describe in detail the xDSL and Line Sharing technologies. This is addressed in Mr. Bruce Meacham's testimony, along with an explanation of the costs associated with BA-MA's proposed rates for those service offerings.

I. Background and Description of BA-MA's Advanced Services Tariff

Q. Please define the term "advanced services."

A. "Advanced services" refers to those services with "high speed, switched, broadband, wireline telecommunications capability that enables users to originate and receive high-quality voice, data, graphics or video telecommunications using any technology." *See Second Report and Order*, FCC Docket No. 98-147, ¶ 1 (released November 9, 1999). The term "broadband" generally means services with sufficient capability – or "bandwidth" to convey large amounts of information. Today's broadband services include services based on xDSL technology, such as ADSL (asymmetric DSL), HSDL (high speed DSL), UDSL (universal DSL), VDSL (very high speed DSL), and RADSL (rate adaptive DSL).

Q. Please explain the basis for BA-MA's advanced services tariff filing.

A. BA-MA's proposed filing is made in accordance with the FCC's *Line Sharing Order*, which requires incumbent local exchange carriers ("ILECs") to make available to CLECs the high frequency portion of the local loop on a unbundled basis in order to encourage development of broadband xDSL services consistent with the goals of the Telecommunications Act of 1996 ("Act"). That unbundling process, which is referred to as "line sharing," raises complex issues and is the subject of exhaustive and detailed development and discussion nationwide. The FCC itself recognized in its *Line Sharing Order* that carrying out its mandates would be a complicated endeavor, and encouraged "requesting carriers and incumbent LECs to engage in a collaborative process at the regional level to develop solutions to incumbent LEC provision of shared line access." *Line Sharing Order* ¶ 128. Accordingly, Bell Atlantic has been at the forefront in collaborative efforts in New York to resolve these technical issues on a region-wide basis.

Q. Can you describe the New York Collaborative Process in which Bell Atlantic is currently involved?

A. Yes. Specifically, over the past several months an Industry Collaborative involving Bell Atlantic-New York ("BA-NY") and a host of competitive local exchange carriers (including Covad) has been engaged in exhaustive technical discussions and negotiations to ensure that the requirements of the *Line Sharing Order* are satisfied. This collaborative process has taken place under the supervision of the New York Public Service Commission ("NYPSC") and the direct involvement of one of its administrative law judges. As part of this collaborative, a number of subgroups have addressed administrative, engineering, and operational support system ("OSS") issues related to line sharing. Each subgroup has met nearly every week to address and resolve issues on a collaborative basis.

Bell Atlantic and the CLECs have resolved numerous line-sharing issues through this collaborative effort. BA-MA will apply the results of many of these resolutions in Massachusetts as well. As recognized by Covad in its arbitration petition (at p. 2, note 2), "many of the implementation details have been hammered out in negotiations between the parties in the context of the New York Public Service Commission's (NY PSC) DSL Collaborative." Although there may be some areas in which the parties may have fundamental disagreements that cannot be resolved through the collaborative process, many other line sharing implementation issues will simply require time and analysis to work through cooperatively. Therefore, notwithstanding Covad's and other CLECs' claims here, it is Bell Atlantic's expectation that parties will be able to resolve further issues (which it will apply in Massachusetts as well) on a going forward basis.

Q. Please describe BA-MA's proposed advanced services tariff.

A. There are three major components to Bell Atlantic's family of advanced services offerings: (1) unbundled xDSL qualified links (); (2) Digital Designed links; and (3) Line Sharing. All of those services are included in BA-MA's May 5, 2000, tariff filing and are currently available to CLECs in Massachusetts under negotiated agreements.

Q. Please describe the first component of BA-MA's advanced services UNE tariff offering, unbundled xDSL qualified links.

A. As described in Mr. Meacham's testimony, xDSL refers to a family of technologies that supports a wide variety of services by using specialized electronics at the customer's premises and at a telephone company's central office or other company facility to transmit high speed data over copper cables. Unbundled DSL qualified links are currently offered in two varieties: two-wire ADSL qualified links and two-wire or four-wire HDSL qualified links. When a CLEC purchases an ADSL or HSDL qualified link, BA-MA provides a copper loop, less than 18,000 feet long, which the CLEC then equips with its own electronics to provide ADSL or HSDL service to its end user.

Before ordering an unbundled ADSL qualified loop, a CLEC must first determine that the loop is qualified to provide ADSL service -- *i.e.*, is less than 18,000 feet and is copper.

After a loop has been ADSL or HDSL qualified, a standard installation provisioning interval of six business days applies for ADSL or HDSL qualified links.

Q. How does a CLEC determine whether a DSL link is qualified?

A. This can be determined on a mechanized basis by using BA-MA's Loop Pre-qualification database. Currently, approximately 93 percent of the central offices where collocation is currently available or pending are included in the database. A recurring monthly charge applies for the CLEC's use of the database. That charge is intended to recover the forward-looking cost of creating and maintaining that database.

Q. Please describe the manual loop qualification process for DSL links. **A.** A CLEC may obtain information about a line that is not already prequalified in the database by requesting a manual loop qualification. A manual loop qualification may also be used to obtain more detailed information on a loop than that provided in the loop qualification database. For instance, through a manual loop qualification, a CLEC may also determine whether the loop is served on copper or fiber facilities, the presence of a Digital Single Subscriber Carrier ("DSSC"), formerly referred to as Digital Added Main Line ("DAML"), the presence or absence of load coils, and actual loop length.

The manual loop qualification process literally involves manually checking Company databases and paper records in order to determine a loop's technical characteristics and subsequently determine whether a line is ADSL capable. Because a substantial manual work effort is involved in researching and analyzing a loop's technical characteristics, a manual loop qualification can take as much as two business days to complete. A non-recurring charge applies for each request.

An extensive loop analysis is also available upon request to a CLEC seeking more detailed circuit design information. In addition to the information provided through a manual loop qualification, this analysis or "engineering query" also provides the exact location of load coils, location of bridged taps, the gauge of the loop at any point on the line, and the presence of digital loop carrier ("DLC"). Almost all of this data must be obtained and verified via paper records. BA-MA provides engineering queries within three business days and charges a non-recurring fee for each request.

Q. Are there any other charges applicable to DSL links?

A. Yes. In addition to a recurring, mechanized loop database charge for loop qualification and any non-recurring charges associated with a CLEC specific request for a manual loop qualification or an engineering query, recurring and non-recurring charges for unbundled xDSL loops apply as with any unbundled loop type. Specifically, there is a monthly charge for the ADSL/HDSL qualified loop itself, non-recurring Service Order,

Installation-Central Office ("CO") wiring, Installation-Other, and Dispatch charges also apply. As is true of orders for any other loop type, miscellaneous non-recurring charges, such as expedite charges and manual intervention surcharges, will apply, where appropriate.

Q. Please describe the second component of BA-MA's advanced services tariff offering, Digital Designed Links ("DDLs").

A. When a loop is not compatible with the particular type of DSL service the CLEC wishes to provide, the CLEC may serve the end-user using a different service, such as traditional ISDN or T1 service, or may request that BA-MA custom design and condition the existing underlying loop. DDLs offer a menu of conditioning services, such as removal of load coils, removal of bridged taps, and range extenders on ISDN lines. A non-recurring charge applies for each of the specific activities requested. To order a conditioned DDL service, a CLEC might request a manual loop qualification or an engineering query in order to get more information about the configuration of the loop. Subsequently, if the CLEC wishes to proceed, it will issue an engineering work order to start the loop redesign and conditioning process. The interval for the special conditioning work is 15 business days. After completing the work, BA-MA will turn the loop over to the CLEC within the standard six –business day interval. Standard recurring and non-recurring charges for the loop apply, in addition to he conditioning charges associated with the DDL service.

Q. Please describe the third component of BA-MA's advanced services UNE tariff offering, Unbundled Line Sharing.

A. Unbundled Line Sharing provides CLECs access to and use of the high frequency portion of an existing local loop to transport data over that line using xDSL services, while the ILEC provides voice services on the low frequency portion of the same physical loop. *Line Sharing Order*, ¶17. The FCC's rules define the line sharing arrangement as limited to copper loops. Thus, BA-MA is *not* required to provide an end-to-end line sharing arrangement that encompasses shared use of a loop that incorporates DLC electronics and fiber feeder systems.

In accordance with FCC requirements, BA-MA proposes to provide unbundled access to the high frequency portion of the loop to only a single requesting CLEC, for use over the same physical loop as the analog voice service (POTS) provided by BA-MA. As stated by the FCC, ILECs are "not required to provide unbundled access to carriers seeking just the data portion of an otherwise unoccupied [or "dry"] loop." *Line Sharing Order*, ¶72. Likewise, ILECs are not required to provide line sharing to CLECs that are purchasing a combination of UNEs, *i.e.*, UNE-P or platform. *Line Sharing Order*, ¶72.

BA-MA's line sharing tariff includes terms and conditions for making this UNE service available at rates and charges intended to enable BA-MA to recover the incremental (*i.e.*, TELRIC) costs of installing and maintaining Line Sharing as a UNE.

Q. Can you identify the proposed rates and charges for line sharing?

A. Yes. I will describe them here. I have also included a chart summarizing these rates as Attachment I to my testimony. BA's unbundled line sharing tariff offering does not include any recurring charge for use of the local loop itself. Non-recurring charges for the Service Order, Installation-CO Wiring and Installation-Other apply to all line sharing arrangements. The CO wiring and Installation-Other charges apply twice, once for the connection at the frame (and associated cable and pair assignments and systems updates) that connects the loop to the cable going to the splitter, and once for the connection at the frame (and associated cable and pair assignments and systems updates) of the cable that returns the voice channel from the splitter to the frame so it may be connected to the BA switch. Dispatch and other miscellaneous non-recurring charges apply as well, where appropriate, *e.g.*, when a dispatch is required.

In addition, since line sharing may only be provisioned over lines that are ADSL or HDSL capable, a CLEC must qualify the loop before ordering a line sharing arrangement. Consequently, loop qualification charges will be assessed, as described above. DDL conditioning charges also apply when a CLEC requests that BA-MA condition an unqualified loop.

BA-MA proposes only a few new charges in connection with its provision of unbundled line sharing. Those new charges are intended to recover the costs of installing the splitter, the costs of support structures for the splitter, *e.g.*, relay rack, the costs of administration and support associated with the splitter, and the costs of testing lines for voice or data reported troubles, installing or disconnecting cross-connections, and general maintenance and administration.

Q. Please explain the use of the splitter in a line sharing arrangement.

A. A central office splitter is used to protect the CLEC's DSLAM (Digital Subscriber Line Access Multiplexer) data equipment and the data signals from the CO battery used to provide voice service and the transience due to ringing on the voice circuit. As discussed later in my testimony, the FCC in its *Line Sharing Order* did not require ILECs to own and provide splitters to CLECs. Rather ownership is a discretionary *right* of the ILEC, not an obligation. This is consistent with the Act, which only imposes a duty on local exchange carriers to provide "for physical collocation *of equipment necessary for . . . access to unbundled network elements* at the premises of the local exchange carrier." Likewise, nothing in the *Line Sharing Order* gives the CLEC the right to dictate where a splitter should be located in the ILEC's central office.

Q. Please describe the options available for placement of splitters.

A. BA-MA offers a CLEC two central office options for the placement of its splitters. The splitter may be either located in the CLEC's collocation arrangement (Option A), or

in BA-MA's space (Option C). Diagrams illustrating these Options are contained in Mr. Meacham's testimony.

Under Option A, the CLEC generally will not need to change its existing collocation arrangement. Standard collocation augmentation procedures and charges would apply, however, should a CLEC have a need or desire to augment its collocation arrangement, *e.g*. add more tie cables and terminations.

Under Option C, a CLEC must follow existing collocation augmentation procedures to order the splitter installation in BA-MA's space, and to install cable to connect it to the CLEC's existing collocation arrangement. In addition to collocation augmentation fees, BA charges for the actual installation of the splitter, and once the splitter is installed in BA space, charges apply for the support structure where the splitter is placed, *e.g.*, relay rack.

For both Options A and C, administration and support charges apply to cover the general service administrative costs. BA-MA will soon modify this rate and propose a somewhat higher rate if the CLEC uses Option C to reflect splitter maintenance costs that must be recovered by BA-MA. Conversely, a lower rate will be proposed if the CLEC uses Option A. Also, two collocation SAC charges apply to recover the tie cable, frame terminations, and POTBay/Splitter terminations associated with the splitter collocation arrangement. One SAC

applies for the voice channel that returns from the splitter to the Main Distribution Frame ("MDF") (as it goes towards BA-MA's switch), and one for the combined voice and data line that extends from the MDF into the collocation arrangement (which under Option C would have a splitter in the middle.)

Part E of the tariff describes the collocation rates, terms, and conditions that apply to Options A and C in more detail.

BA also has proposed a wideband testing charge fee to recover the cost of additional equipment BA-MA must install in order to trouble-shoot and isolate problems on a Line Shared loop.

Finally, in order to facilitate the provision of Line Sharing, BA-MA is in the process of making major changes to its Operating Support Systems. BA is currently negotiating a contract with Telcordia, which owns and operates many of those systems. Upon completion of that contract, BA will propose additional charges for Department approval on a prospective and retroactive basis when the magnitude and associated costs of the OSS work effort are known.

II. Line Sharing Arbitration Issues

Q. Please comment generally on the issues raised in Covad's Petition for Arbitration.

A. Many of the "Phase I" issues raised in Covad's Arbitration Petition relate to line sharing, which is the subject of the Industry Collaborative effort in New York previously described in my testimony. Covad has acknowledged that fact, and like many other participants in that Collaborative effort, anticipates resolution of many of those issues. The fact that those issues are not yet resolved in New York does not, however, reflect BA-MA's inaction, as Covad implies, but rather illustrates the complexity of the issues to be addressed and the time required to resolve them cooperatively. BA has committed that the basic operations methods and procedures for line sharing developed in the New York Collaborative would be used throughout the region, including in Massachusetts.

For virtually all of the "Phase II" issues in its Petition, Covad has provided a minimal description of the disputed issue and the justification (if any) for its position, often stating that BA-MA's position currently is "unclear" concerning Covad's own vague demand. Because itis, in many instances, essentially impossible at this juncture to propose complete solutions and arguments to questions that has not been clearly framed or articulated, my testimony addresses only those issues raised by Covad that have been sufficiently described to allow a considered response. As this analysis shows, in virtually every instance Covad's demands are unsupported.

Q. Have any line-sharing implementation/provisioning issues raised in "Phase I" of Covad's Arbitration Petition been resolved?

A. Yes. The first issue (1a) – whether "BA-MA should be required to fully implement all requested splitter configurations for the line-sharing UNE in all requested central offices by June 6, 2000" – was settled by the parties and removed from arbitration. As for the remaining Phase I issues, dealing with intervals for lines, intervals for future collocation augments, prices, test access, and splitter ownership, Covad was sufficiently satisfied to proceed with Line Sharing under an interim agreement (executed in May 2000), even though Covad reserved its rights to continue to arbitrate here. Moreover, the fact that Covad (and Rhythms Links, as well) has agreed to these issues, even on an interim basis, demonstrates that these terms are suitable and would not interfere with Covad's business operations.

Q. Please comment on Issue 1(b) regarding the appropriate interval for provisioning the line sharing UNE.

A. BA-MA proposes that a standard six-day business interval apply for provisioning a line sharing arrangement. Although Covad has agreed to this interval on an interim basis, Covad proposes a series of staggered dates of ever-shorter provisioning intervals in its Arbitration Petition. Covad claims that it is entitled to a line sharing "provisioning interval" (*i.e.*, the time it takes to complete an order to make line sharing available on a loop) that is "significantly shorter than the intervals applicable to standard xDSL-capable loops because BA-MA already has provisioned the loop used for the line sharing UNE

["unbundled network element"] to the customer premises." Covad Petition, at 14. Covad's argument is wrong.

Under the FCC's *Line Sharing Order*, Covad and the other CLECs are entitled to a provisioning interval equivalent to the ILEC's standard DSL service provisioning interval (six business days), and that is what BA-MA has offered to provide (after loop qualification and any necessary loop conditioning have occurred). Nevertheless, BA-MA has stated that as it gains experience with the installation of line sharing arrangements and installs OSS improvements, the Company will work with CLECs to determine if the interval can be shortened in the future.

There is no doubt that the *Line Sharing Order* contemplates and expects parity of provisioning line-sharing based on the time a standard DSL service is provisioned today. The FCC expressly stated in the Order that "we expect that incumbent LECs will implement ordering and provisioning mechanisms and interfaces that provide competitive LECs with the ability to obtain access to the high frequency portion of the loop ***in the same ordering and provisioning time intervals that the incumbent provides for its own xDSL-based service***." *Line Sharing Order*, ¶ 107 (footnote omitted), 174 ("we urge states to consider a standard based on the time required xDSL capable loops. We believe that this is the most accurate analogue that exists currently.").

Recently, an extensive arbitration decision in California, endorsed the parity based provisioning position and rejected Covad's and other CLECs' arguments, concluding that CLECs had "failed to convincingly show that the proposals of the ILECs are inconsistent with parity, or that less than parity is reasonable."

Moreover, the "factual" predicate for Covad's demand – that line sharing can be provisioned in less than 10 minutes (Petition, at 14) – is inaccurate. As Covad is well aware, a line sharing service order traverses a number of BA-MA Operations Support Systems ("OSS") and service centers. These systems and centers assign a cable and pair, update inventories needed for maintenance and network management purposes, update retail records to reflect the shared use of the line, update billing systems, and send the order through the Work Force Administrator to obtain a dispatch for a central office technician. In some cases, dispatch of an outside technician is required as well. Furthermore, some service order processing steps are necessarily manual. In some cases, processes will become more mechanized when modifications to certain OSS that are necessary to accommodate line sharing are completed by Telcordia and integrated by BA. However, those modifications are still being planned and negotiated**.** In the meantime, there are many steps, both mechanized and manual, in processing a CLEC line sharing service order, and these processes involve much more BA-MA time and effort than Covad claims.

BA-MA's proposal to provision line sharing initially within the standard DSL service interval of six business days, to be followed by consideration of a shorter interval as appropriate after expertise is acquired, systems are updated, etc., is a reasonable approach, especially in light of BA-MA's (indeed, the whole industry's) lack of

experience with installation of line sharing for Covad and other CLECs. That lack of experience has only been exacerbated by the CLECs themselves.

For example, BA-MA had hoped that by now it would have had the benefit of actual operating experience with provisioning line sharing in the NY line sharing pilot which called for 300 shared lines to be in place by late April 2000. However, the CLECs (including Covad) have failed to perform their part of the trial and ordered only a fraction of that number. As a result, no meaningful provisioning testing has occurred.

Further, it is not appropriate to stretch and set an interval that is unattainable; rather, it makes more sense to determine a reasonable, feasible six business day interval that can be achieved, so that both BA-MA and the CLEC can live up to their commitments to their customers.

In its May Agreement with BA-MA, as well as with other ILECs, Covad has agreed that initial parity in provisioning intervals, followed by consideration of shorter intervals once more experience is gained, is appropriate and sufficient. For instance, in a recent announcement regarding an agreement reached with US West, Covad stated that the "ILEC will initially provision the [line sharing UNE] within the current standard unbundled loop provisioning interval at least 90% of the time. The Parties acknowledge that this interval may be subject to improvement based on systems mechanization and/or relevant state or federal regulatory orders." *See* US West Agreement with Covad, *et al*., para. 6. Accordingly, if Covad finds a standard interval acceptable in US West and on an interim basis in its agreements with Bell Atlantic, there is no basis for objecting to it in this tariff and arbitration proceeding.

Q. Should BA-MA be required to provide collocation augments for line sharing within 30 calendar days, as proposed by Covad under Issue 1(c)?

A. After the initial implementation of line sharing under the agreed schedule which settled Issue 1(a), Covad demands that BA-MA be required to effect the necessary line sharing changes (or "augments") to collocation arrangements in its central offices within 30 days. Covad offers no justification for this request in its petition, and none exists.

BA-MA proposes – and has agreed in settling with Covad that there is no need for an expedited "Phase I" arbitration – that the physical collocation interval of 76 business days would apply. This is also consistent with the intervals established in the New York Collaborative as applying to collocation augments and new collocations. (BA would apply this interval in Massachisetts, as well.) The work required to implement a line sharing collocation augment is essentially the same as for other collocations arrangements, Site surveys must be performed to find space and cable runs, vendors must be found to do the work, cables must be ordered and placed, systems must be updated to include inventory locations, etc. Thus, there is no basis for applying a substantially shorter interval for line sharing. To apply an even shorter, special case interval would seriously disrupt the standard collocation process, which has provisioned thousands of collocation arrangements on time. Moreover, substantially shorter intervals create serious

pressures on vendors, who will be reluctant to bid on such jobs due to the difficulty of meeting their deadlines. The result of imposing an interval less than half the normal timeframe would likely be more disruption and delay in provisioning collocation arrangements, not greater speed or efficiency.

The arbitrator in California reached that same conclusion in rejecting Covad's claim of entitlement to a 30-day interval to install tie cables for use in line sharing arrangements, concluding that "[t]he interval for tie cable installation is a collocation matter." As GTE stated,

"setting intermediate intervals for every piece of equipment will not enhance the likelihood that service will be provisioned smoothly and timely. Rather, multiple and unnecessary intervals detract from efficient operations. . . . It is unreasonable to adopt different intervals for different pieces of equipment . . .."

California Arbitration Decision, at 52.

While Covad and some other CLECs may believe it will enhance ***their*** business plans to receive special treatment in collocation matters for line sharing, this would also unfairly discriminateing against other potential collocators not engaged in line sharing. A collocator raised this as a serious concern at a New York Collaborative meeting. He described a scenario where other collocators would be "jumping the line" ahead of his company because his company bought whole loops instead of line-shared loops. Such disparate treatment is unfair to these other CLECs or to the customers they serve.

Q. If an ILEC owns the splitter, should it be required to provide splitter functionality in line increments and shelf increments, at the option of the CLEC, as described in Issue 1(d)?

A. The issue raised by Covad is based on a faulty premise that BA-MA can be required to own the "splitter" used by CLECs to enable line sharing. This contradicts the *Line Sharing Order*, in which the FCC held that ILECs *may*, but are not required to, own and maintain control over the splitter. *Line-Sharing Order*, ¶ 76. Moreover, nothing in the *Line Sharing Order* requires that BA-MA assume the expense and risk of owning splitters for CLECs to use. Since ILEC control over the splitter is discretionary, not mandatory, Covad's request that BA-MA can be required to provide the splitter in a particular manner is wrong.

As previously discussed in my testimony, BA-MA offers Covad and other CLECs two splitter options: (i) a CLEC may purchase its choice of splitters and install those splitters within the CLEC's collocation space (Option A) or (ii) a CLEC may use BA-MA to install the splitters purchased by the CLEC in BA-MA's central office space (Option C). BA-MA's early experience has been that CLECs are ordering line-sharing under both splitter options, which confirms that they are both effective means of providing line-sharing.

Q. Does the *Line Sharing Order* allow CLECs to designate where the splitter will be located in the ILEC's central office?

A. No. As to the ***location*** of the splitter in BA-MA's CO, nothing in the *Line Sharing Order* entitles the CLECs to dictate where the splitter is placed. BA-MA, not the CLECs, should determine the most efficient way in which to locate equipment in its own central office. This is consistent with the conclusion reached by the United States Court of Appeals for the District of Columbia in its recent decision vacating the FCC rules on this issue. Specifically, the Court found that "[t]he FCC offers no good reason to explain why a competitor [CLEC], as opposed to the LEC, should choose where to establish collocation on the LEC's property; . . ..It is one thing to say the LECs are forbidden from imposing unreasonable minimum space requirements on competitors; ***it is quite another thing, however, to say that competitors, over the objection of LEC property owners, are free to pick and choose preferred space on the LECs' premises, subject to only technical feasibility. There is nothing in Section 251(c)(6) that endorses this approach.***

Q. Does the recent arbitration decision in California discussed earlier in your testimony address the issue of ownership and location of splitters in line sharing arrangements?

A. Yes. The arbitrator in that case reached the same conclusion as BA-MA regarding the ownership and location of the splitter, based in part on the D.C. Circuit Order and the *Line Sharing Order*. The arbitrator concluded found that "[w]hile a menu of choices may be optimal for the point of view of CLCs, it is neither required by the FCC, nor is it reasonable." California Arbitration Decision, at 21. The arbitrator went on to explain that "[n]othing in the FCC Line Sharing Order suggests or directs that the CLC may dictate the location of an ILEC-owned splitter. Rather, ILECs must be allowed to manage the use of their own facilities to ensure that they are used efficiently and in a safe manner." California Arbitration Decision, at 22. Accordingly, based in part on the Court's analysis and the language of the *Line Sharing Order* itself, the California arbitrator denied the CLECs' request on the ground that it was "unreasonable" because it would require "that the CPUC go beyond what the Court has concluded the FCC could not do in its collocation order (i.e., here asking that the CPUC direct both the type of splitter and the location in the ILEC's area)." California Arbitration Decision, at 23.

Q. Please explain the potential administrative and economic problems associated with BA-MA's purchase of splitters.

A. Requiring BA-MA to purchase and own such splitters to be used by an individual CLEC would be economically unsound, and administratively inefficient and cumbersome, given the absence of any reliable forecasts of aggregate or individual CLEC line-sharing/splitter demand, and would create needless confusion and complexities in operations in distinguishing between the splitters the CLECs own and those owned by BA-MA. This would also have financial implications as CLECs migrate, as they undoubtedly will, to newer, more technologically advanced splitter products and other means of providing advanced services. BA-MA would then be left with stranded splitter investment.

By requiring line-by-line provisioning, all Covad is trying to do is delay when it would have to pay for the equipment it would require BA-MA to purchase on its behalf – by paying only line-by-line if and when Covad finds a use for each line capacity on the splitter. This would increase the financial burden and risk imposed on BA-MA to supply equipment dedicated to the use of individual CLECs. In addition, there may be compatibility issues if multiple CLECs want to use the same BA-MA splitter on a line-at-a-time basis because not all splitters work with different DSLAMs. Thus, BA-MA would likely have to buy and maintain splitters to match each different CLEC's equipment. This is unreasonable, inefficient and unnecessary.

Nothing in the *Line Sharing Order* or the Act compels BA-MA to purchase network components it does not currently own and bear this unfair and unreasonable shift of financial risk and burden. CLECs are capable of providing their own splitters, and do so today. Therefore, although some CLECs claim that it is beneficial to have shared splitters (a claim which is unsubstantiated) and then randomly tag BA-MA with the ownership responsibility for those shared splitters, there is no valid reason that BA-MA should have to buy the common equipment for everyone else to use. BA-MA should not be placed in the position of having to buy new equipment and bearing additional investment costs and risks for the CLECs, especially in this area of fast-changing technology where (for example) cable modem systems could displace this kind of high speed transmission capability.

To the extent CLECs find it beneficial to install and utilize splitters on a line-at-a-time or shelf-at-a-time basis, they are free to do so themselves (individually or through a joint effort) using existing splitters of other CLECs. For instance, a CLEC, such as AT&T, which is a proponent of this position, could buy the splitters, place them in BA-MA's office, and let other CLECs use them on a line-at-a-time basis; or a consortium of CLECs interested in sharing could buy the equipment together and share it, if there are benefits to shared use. This arrangement is similar to collocation, where CLECs may share their collocation cages if they see benefits to it; likewise, for line sharing. Accordingly, the CLECs offer no justification -- and there is none -- for why BA-MA must both own the splitters on CLECs' behalf and to provide them on a bit-by-bit basis, according to CLEC demands.

Q. Does shared use of the splitter create other problems?

A. Yes. There would be inventory management problems. One party would be forced to manage all of the cable and pair facilities assignments so there would not be chaos. However, that party should not be BA-MA. Again, I draw an analogy to shared collocation arrangements. As in collocation, when sharing occurs, the CLEC should manage facilities assignment for all other CLECs that share its faciltiy.

Q. Please elaborate on the administrative and operational problems associated with shared or common splitters owned by BA-MA.

A. Certainly. First, movement of customers from one voice CLEC to another is more complicated when there are shared splitters. In addition, there are three significant wiring problems that could arise if shared splitters were deployed.

First, for BA-MA, the wiring between the DSL equipment and the Main Distributing Frame ("MDF") has been the most difficult to wire when installing standard ADSL loops. That leg does not have dial-tone or electronic signatures that can ensure the wiring is complete or wired accurately. BA-MA has addressed this issue in line sharing by hard-wiring a cable from the splitter to the DSLAM. However, with BA-MA owned and commonly used splitter, this design can no longer be used. With the commonly used splitter, the data leg is wired a line at a time and becomes a testing problem. Three cross connects would now be required, one more than the proposed design. This means that there would be two cross connects, both of which have dial tone on them.

Second, the addition of a shared splitter owned by BA-MA creates complexity in the ordering process. Today, there is one Cable Assignment that enables the wiring of a "in and out" pair on the hardwired splitter. The common splitter requires a new and different assignment process with all three connections assigned.

Third, the addition of a BA-MA owned splitter creates significant additions to the wiring and rewiring of the circuit as the customer migrates between voice providers. Some voice providers have requested that BA-MA provide line sharing with BA-MA splitters. If this were required, then unnecessary rewiring between BA-MA splitters and CLEC splitters would become commonplace.

Finally, since a splitter should be designed to match DSLAM and be specified by the Data LEC, the creation of unique inventories and types would undermine any effort for minimizing complexity. New splitter designs will also add to churn and inventory and assignment issues.

Q. Please provide some background on the pricing issues being arbitrated, as stated in Issues 2 (a), (b), and (c).

A. Covad has raised three issues on line sharing pricing in its Arbitration Petition (subissues a-c). All of these issues were removed from Phase I arbitration based on the parties' agreement on interim prices subject to "true-up" after permanent prices are established. These issues concern the appropriate (a) recurring and (b) non-recurring prices for all elements of line sharing, and (c) whether BA-MA itself should have to pay for the cabling that carries voice traffic from the CLEC's splitter to BA-MA's main distribution frame in its central offices.

BA-MA's proposed rates and supporting studies for recurring and non-recurring line sharing charges submitted in this proceeding are based either on existing tariffed rates (such as for physical collocation) or on new rate elements reflecting costs incurred to provision for line sharing (such as splitter maintenance). The rates are provided in

Attachment I to my testimony. Mr. Meacham's testimony describes in more detail the costs studies that were done to support these new rate elements.

Q. Please respond to Covad's Issue 2(a) regarding the appropriate recurring charges for all elements of the line sharing UNE under federal pricing rules and FCC's *Line Sharing Order*.

A. "Recurring charges" are those charges which the CLECs must pay on a monthly basis for the services BA-MA provides in making line sharing available. BA-MA shows recurring rates specifically applicable to line sharing services on Attachment I. That Attachment also shows that regular collocation recurring SAC charges apply to line sharing cables and frame/Pot Bay/Splitter terminations, and regular xDSL recurring charges for loop pre-qualification apply. In addition, Attachment I shows which new rates are appropriate for adjudication in this proceeding (as noted in Mr. Meacham's testimony) and which rates were previously approved in the *Consolidated Arbitrations* and D.T.E. 98-57 (Phase I). The recurring rates appropriate for adjudication in this proceeding are: Administration and Support for splitters, splitter shelf support, and wideband testing. An explanation of each of these functions, the costs associated with them, and the resulting rates are set forth in detail in Mr. Meacham's testimony.

With respect to the use of the high frequency portion of the local loop itself, BA-MA does not propose to charge any of the recurring costs of this use to the Petitioners at this time. This was the central issue raised on recurring charges by Covad. However, BA-MA reserves the right to re-examine the "zero-cost allocation for use of the local loop" position in the future, understanding that any changes in such charges would be subject to Department approval. Additionally, BA-MA has not yet completed cost studies for recovery of OSS costs because Telcordia is still working on the project, but notes that such cost studies will be proposed in the future for approval by the Department, and that those rates should be retroactive, subject to true-up (as in the May Agreement with Covad), and may contain some recurring charge component.

BA-MA agrees that existing tariffed charges for collocation SAC cabling and terminations should apply, as Covad proposed, unless and until modified as a result of other proceedings.

Also, BA-MA has not proposed at this time any specific recurring charges for the host of Covad's so-called line sharing "UNE-Fiber Fed DLC" sub-elements and services. This is because, as explained in response to Issue No. 5, below, BA-MA is not obligated to provide such services under the FCC's *Line Sharing Order* and, in any event, there remain a host of technical and operational issues which the industry as a whole is still working to resolve. BA-MA thus has not and cannot at this juncture determine the costs or appropriate rates for this demand.

Finally, BA-MA's proposed rates on Attachment I are for the currently offered service configurations, *e.g.*, splitter Options A and C. Should BA-MA negotiate or be ordered to provide additional line sharing configurations, such as line sharing with different forms

of collocation, or BA owned splitter configurations, or line sharing on the copper distribution portion of a loop, BA-MA reserves the right to present to the Department for approval new rates for the new configuration consistent with the new service arrangement.

The explanation and support for the proposed new charges is contained in Mr. Meacham's testimony. For other recurring charges, such as BA-MA's proposed collocation SAC charges, and BA-MA's proposed loop pre-qualification database charges, BA-MA is proposing using the currently effective rates. As stated earlier, those rate levels were previously established in other proceedings. With respect to rate application rules, two SAC charges would apply because two cables are placed: one for the combined voice and data line going into the splitter, and one for the voice-only portion that the CLEC returns to BA-MA from the splitter. These are both incremental cross-connections BA-MA incurs that it would not incur absent line sharing. With respect to rate application of the loop pre-qualification database, the same database look-ups occur in line sharing, as in the provision of xDSL loops and, therefore, the same rates should apply.

Q. Please comment on Covad's Issue No. 2(b) regarding the appropriate non-recurring charges for all elements of the line sharing UNE under federal pricing rules and FCC *Line Sharing Order*.

A. "Non-recurring charges" ("NRCs") are those charges which the Petitioners must pay on a one-time basis for the services BA-MA provides in making line sharing available. A complete list of non-recurring charges that apply for line sharing are listed in Attachment I to my testimony, along with a list of which proceeding is appropriate for the adjudication of each rate level.

There is only one non-recurring charge rate specific to line sharing to be determined in this proceeding. That charge is for the installation of the CLEC splitter in BA-MA central office space. The non-recurring costs for that charge are summarized in Mr. Meacham's testimony and the cost study documentation in support of those costs is contained in the testimony. In addition, BA-MA proposes non-recurring charges applicable to line sharing and DSL services for loop qualification, engineering queries and work orders, and conditioning.

With respect to rate application rules for other rate elements, BA-MA proposes to charge existing collocation NRCs, existing service order, central office wiring, provisioning-other, NRCs, and exisiting dispatch charges where applicable, existing manual intervention surcharges where applicable, existing expedite charges where applicable, existing loop manual qualification fees where applicable, existing engineering query fees where applicable, existing engineering work order fees where requested, and existing conditioning fees.

Finally, as with recurring rates, BA-MA's proposed non-recurring rates shown on Attachment I apply to the currently offered service configurations, *e.g.*, splitter Options A

and C. Should BA-MA negotiate or be ordered to provide additional line sharing configurations, such as line sharing with different forms of collocation, or BA-MA owned splitter configurations, or line sharing on the copper distribution portion of a loop, BA-MA reserves the right to present to the Department for approval new rates for the new configuration consistent with the new service arrangement.

Existing rates for other non-recurring elements listed above would apply because the work activities are the same as those for which the existing rates were developed. The collocation application charge should apply because a service representative still has to process an application, set up accounts in systems, etc. The Collocation engineering and implementation fee still applies because BA engineers still have to survey the CO and design the augment. The service order fee should apply because BA-MA still has to process a service order. Two central office wiring and installation-other charges should apply because BA-MA has to place two new connections at the main distributing frame, one to connect the loop to the cable that leads to the splitter, and one to connect the voice service that the CLEC returns from the splitter with the cable that goes to the BA-MA switch for voice service.

The remainder of the proposed charges, *i.e.*, loop qualification, engineering queries, work orders, and conditioning, would only apply when a CLEC specifically requests that BA-MA perform that work function at their option. In addition, as explained with respect to recurring charges, it is neither required nor possible to determine any non-recurring charges for fiber-fed DLC facilities or any new configurations that may be ordered at this time.

Q. Please comment on Covad's Issue No. 2(c) that BA-MA should be required to assume the cost of the cable that carries voice traffic from the CLEC's splitter to the ILEC's main distribution frame.**A.** Covad asserts that it should not have to pay any charge at all for the cost of the cable that carries voice traffic from the CLEC-owned splitter to BA-MA's main distribution frame ("MDF") in the central office. The basis for this claim is allegedly that this cable already is in place and is "recovered by the ILEC through standard voice rates today" and, further, that Bell Atlantic has agreed in New York that there will be no charge for this cable. BA-MA disagrees with this characterization. Covad and other CLECs should pay for this cable at currently tariffed collocation tie cable rates unless and until those rates are changed.

Contrary to Covad's assertion, this cable constitutes additional cabling and requires additional work that would not be required were there no line sharing and therefore no splitter on the line. Therefore, it represents an incremental cost to BA-MA which is properly recovered from CLECs requesting line sharing. Moreover, while it is unclear what "cable" Covad is refering to from the New York proceeding, what is clear is that Bell Atlantic has ***not*** "agreed with Covad's position on this cable cost" in New York or anywhere else.

BA-MA's retail voice rates recover the cost for central office wiring at the MDF from the line side to the switch port side of the MDF. The cable for which BA-MA seeks cost

recovery from CLECs in line sharing rates is ***a completely different*** piece of central office equipment. That cable goes from a splitter -- which may be located anywhere in the central office, including the CLEC's collocation node -- back to the MDF, where it can then be connected to office equipment that brings it to the switch. The FCC already has acknowledged that this cost can be recovered in rates, finding in its *Line Sharing Order*:

If the splitter is not located within the incumbent LEC's MDF, however, then we would expect the states to allow the incumbent LEC to adjust the charge for cross connecting the competitive LEC's xDSL equipment to the incumbent LECs' facilities to reflect any cost differences arising from the different location of the splitter, compared to the MDF.

Line Sharing Order ¶ 145.

When Covad similarly tried to evade paying this cost in California, the arbitrator soundly rejected its gambit: "To the contrary, because the service is reconfigured, different lines are required, and costs are incurred. . . .This cost is caused by the CLC, and should be paid by the CLC." California Final Arbitrator's Report at 68. Accordingly, BA-MA should be allowed to recover this cost.

Q. Please describe the testing access issue, set forth as Issue 3 in the Phase I Arbitration.

A. The last "Phase I" issue raised by Covad in its Arbitration Petition concerns whether BA-MA should be required to provide Covad with direct, physical access to the loop facility for testing, maintenance and repair activities. This issue, too, was resolved by agreement on an interim basis. The FCC rules concerning line sharing require that one of two types of access be available:

Incumbent LECs must provide, on a nondiscriminatory basis, physical loop test access points to requesting carriers at the splitter, through a cross-connection to the competitor's collocation space, or through a standardized interface, such as an intermediate distribution frame or a test access server, for the purposes of loop testing, maintenance, and repair activities.

47 C.F.R. §51.319(h)(7)(i).

BA-MA has offered Covad several options, as reflected in the parties' interim agreement. If Covad elects to locate its splitter in Covad's own collocation space, it will have direct physical access to the loop at the splitter for testing purposes. If it chooses to locate its splitter in BA-MA's space in the central office, BA-MA has offered to install a Covad-provided test head (a "test access server") that will permit Covad to access the loop remotely for physical testing purposes. In addition, BA-MA has offered to conduct tests at Covad's request using BA-MA's own test head where one is installed and provide test results to Covad, and to give Covad access to BA-MA MLT testing platform. In the rare cases where these testing options cannot isolate and help remedy the problem, BA-MA and Covad technicians will meet in the CO to jointly address and resolve the problem. By

offering this range of options to CLECs, BA-MA more than adequately covers any testing scenario that may legitimately concern Covad, both on an interim and permanent basis.

Q. Please comment on the Phase II Issues, starting with Operational Support Systems ("OSS") in Issue 4.

A. Covad claims that BA-MA should be required to provide direct, real-time, electronic access to its OSS for line sharing UNE orders, including without limitation loop qualification, pre-ordering, and ordering functions.

The current access afforded to CLECs with respect to loop qualification, pre-ordering and ordering functions is more than sufficient to allow them to provision line sharing in the coming months, as evidenced by their plans to do so and their interim agreements with Bell Atlantic. It is also evidenced by the fact that CLECs are using this same information to provision thousands of xDSL UNE loops today.

On a forward-looking basis, BA-MA offers to make available electronic interfaces which will fully support line sharing as soon as practicable. BA-MA also offers to apply the results of the ongoing collaborative process from New York, in which the same related issues have been under extensive discussion and development. Bell Atlantic has also been working with CLECs and with Telcordia to implement a system through which CLECs can obtain access to loop information contained in BA's LFACS database. Covad is aware that Bell Atlantic fully intends to implement significant other OSS upgrades that will support line sharing, and that it is in active discussions with third party vendor Telcordia with respect to this project. As Covad is also aware, the timing for availability of these OSS upgrades is largely within Telcordia's control, and Telcordia has not been able to commit to a date certain to deliver these upgrades. After Telcordia releases those systems changes, BA-MA must evaluate and test the work and integrated it into its own systems as well – a process which will take several additional months to complete. For this reason, BA-MA has not committed to a specific implementation plan for the OSS upgrade, or proposed to set interim prices for OSS.

It appears that the California arbitrator may have been speaking of the same situation when addressing Covad's demand on this issue and stating that "OSS matters continue to be developed in other [Commission] and FCC proceedings. There is no convincing evidence here that ILECs are failing to reasonably develop electronic interfaces as soon as possible. It would be an idle act to here order ILECs to provide a real-time electronic interface . . . if that interface is simply not available." California Arbitration Decision, at 38.

Q. Please comment on Digital Loop Carrier/Remote Terminal issues raised as Issues 5(a) and (b) in Covad's Arbitration Petition.

A. The first issue relates to Covad's claim that BA-MA is obligated to provide them with the "line-sharing UNE" or "line sharing on loops" not only when the end-user customer is

served with an all-copper loop, but also when the customer is served in part over fiber facilities. The situation addressed in this issue is when the portion of the loop closest to the customer ("distribution") is copper, but the signals from various copper distribution subloops are combined together (using digital loop carrier, DLC) on a fiber subloop segment back to the central office ("feeder"). Covad relies for its claim that line sharing must be provided in this situation solely on paragraph 91 of the *Line Sharing Order*. With respect to Covad's demands, however, it remains unclear exactly what they are seeking.

BA-MA will make available line sharing over the copper distribution subloop, even when the customer is ultimately served over a fiber DLC feeder, which will allow the CLEC to provision DSL service to its customer. As explained below, however, it is an oxymoron to say (or to request) that "the line sharing UNE" be provided over fiber, since line sharing by definition only applies to copper loops or subloops. In addition, BA-MA offers to continue to engage in good faith negotiations with the CLECs on a regionwide basis to resolve the technical and operational issues associated with provisioning of line sharing where fiber facilities partly serve the customer, which may allow the parties to enter into mutually agreeable terms and conditions regarding this issue at a later date. It is expected that such further negotiations will be guided in large part by the results of the pending review of the line sharing over fiber facilities issue by the FCC, which currently has before it a request from SBC to resolve certain issues concerning this matter in the context of SBC's merger with Ameritech.

BA-MA is making collocation available to CLECs at or adjacent to the remote terminal ("RT") or the Feeder/Distribution Interface ("FDI"), and filed its tariff for this service on May 17, 2000. Once a CLEC has obtained collocation at or adjacent to the RT or the FDI (or established an equipment cabinet at or adjacent to the RT or the FDI), BA-MA will offer line sharing over the copper distribution subloop running from that location to the end-users' premises. This provisioning of line sharing over the copper subloop allows CLECs to serve a customer with DSL service, even where the customer is served over a fiber DLC feeder.

It should be clear, however, that this arrangement is not offering the "line sharing UNE" over fiber facilities. As defined by the FCC, the "Line Sharing Unbundled Network Element" includes only "the high frequency portion of the local loop" (*Line Sharing Order*, ¶ 4), which in turn is defined as "the frequency range above the voiceband on ***a copper loop facility*** used to carry analog circuit-switched voice and transmissions." *Line Sharing Order*, ¶ 26 (emphasis added). Consistent with this definition, the FCC's implementing rules only address line sharing on copper loop facilities. *See* 47 C.F.R. 51.319(h)(1). The CLECs cannot expand the definition of "line sharing" in order to impose line sharing obligations on fiber facilities, such as fiber DLC feeder subloops.

Moreover, there are substantial operational issues that remain unresolved with respect to trying to include fiber facilities as part of a line sharing element offered by BA-MA. It is unclear whether even the Covad has determined the manner in which they would take advantage of "line sharing UNE" over fiber. .

Such access raises a host of technical and operational issues which Bell Atlantic has been cooperatively discussing with CLECs (primarily in the context of the New York Collaborative) to attempt to resolve. Such technical complexities were not unexpected, as the FCC itself recognized in the *Line Sharing Order* by noting that the functionality required to accomplish line sharing on DLC systems may not be available by the effective date of our spectrum unbundling rules." *Line Sharing Order*, ¶ 92. In light of these unresolved industry technical and operational issues, it has been and remains impossible to suggest definitive terms to resolve this issue. As noted above, however, BA-MA is willing to work in good faith on a region-wide basis, guided by any subsequent rulings by the FCC, to work toward an agreed resolution of this issue.

The second issue raised by Covad under this heading (Issue 5b) is whether BA-MA should be required to provide access to feeder subloops at UNE rates. Covad's Arbitration Petition on this matter is vague and ambiguous. Covad Petition, at 21. BA-MA's proposed tariff complies fully with the FCC requirements as described below.

In accordance with the FCC's order concerning subloop unbundling, BA-MA is making unbundled subloops available to Covad (and other CLECs). In addition, and in accord with the FCC's separate order on advanced services, BA-MA will make collocation available at or adjacent to the Remote Terminal ("RT") or the Feeder/Distribution Interface ("FDI") and has filed amendments to its state collocation tariffs to implement such offerings.

Q. Please comment on Provisioning Issues in the arbitration. (Issue 6(a), (b))

A. Covad has raised two generalized provisioning issues under this heading. The first (Issue 6(a)) is whether BA-MA should be required to test and the CLEC accept the line sharing UNE to consider the installation of the UNE to be complete.

While still subject to discussion, such a testing/acceptance process may be a needless exercise. Line-sharing is provisioned over an existing loop, therefore a dial tone is present, thus eliminating the need for any cooperative testing and "acceptance." Since it remains unclear what Covad's proposal would require and how it would work in practice, it is inappropriate to adopt it at this time.

Second, Covad has raised as Issue 6(b) whether BA-MA should be required to provide a "Line-Station Transfer" (1) when a customer is served by a loop that suffers interference or (2) when a customer is served over DLC and either (a) a spare copper pair running from the demarcation point at the end-user premises to the serving wire center is available or (b) a spare copper feeder subloop running from the remote terminal to the serving wire center is available.

Covad has scarcely raised this issue in the New York Collaborative. This near silence is hardly surprising because, by definition, line sharing pertains to the sharing of the high

frequency portion of an ***existing*** copper loop providing service and not, as Covad would have it, sharing a loop which an ILEC must create for a CLEC's benefit. *Line Sharing Order*, ¶ 26 ("the frequency range above the voiceband on a copper loop facility ***used*** to carry analog circuit-switched voiceband transmissions")(emphasis added). Moreover, while BA-MA, as Covad indicates, has agreed to provide a line and station transfer (or "pair swap") for stand-alone DSL loops, it is not necessary, however, to require it in the line sharing context because of the complexities involved. Attempting to do so will generate a potential for disruption of the voice service being transmitted on the shared loop, and could require the movement of a large number of working lines. The fundamental premise of Covad's argument – that requiring line-station transfers will allow customers to access high speed data service "without interruption of their voice services" – thus is false. If BA-MA is required to perform pair swaps, it should only be required with the following three conditions in effect: (1) BA should be allowed to charge CLECs commensurate with the costs of providing pair swaps; (2) BA should not be responsible for service penalties due to customer disruptions that may result; and (3) intervals for provisioning the service should also reflect the time involved to perform pair swaps.

Q. Please comment on Maintenance and Repair Issues. (Issue 7)

A. Covad next raises the vague general issue of "what terms and conditions govern the testing, maintenance and repair of line-shared home-run copper loops and fiber-fed DLC loops." Covad's only discussion of this issue is that it should be governed by the non-discrimination provisions of the 1996 Act, and that BA-MA's position is "unknown." Covad Petition at 20.

First, BA-MA's position on these issues is not "unknown." Indeed, in the context of negotiations concerning (for example) Issue 3, above, BA-MA has proposed terms and conditions to deal explicitly with testing and repair issues.

Second, in any event, the statement of the issue by Covad is too ambiguous and vague to be addressed in detail at this time. Even in the context of Covad's statement that "the non-discrimination provisions of the federal Telecommunications Act" should apply to this issue, Covad's shorthand cloaks its request. As with all other issues, those concerning repair and maintenance continue to be subjects of the New York collaborative. As stated earlier, BA-MA has committed that methods and procedures developed in the Collaborative will be used in Massachusetts as well. To the extent these matters remain in dispute and are further amplified and clarified by Covad in the course of these proceedings, BA-MA will respond to them in greater detail at the appropriate time.

Q. Please comment on Voice Interference Issues. (Issue 8)

A. With this issue, Covad asks that the burden be placed on BA-MA to demonstrate to the Commission that loop "conditioning" (that is, preparing it for line sharing use) will significantly degrade existing voice service ***every time*** BA-MA concludes that a specific loop cannot be conditioned without causing such degradation.

Covad's blanket demand is unreasonably and unnecessarily burdensome to both BA-MA and the Commission. BA-MA will condition a loop at Covad's request, provided such conditioning does not substantially impair the voice grade service provided over the loop. Some types of conditioning (*e.g.*, removal of some bridge tap) will generally be possible without such impairment. It is an engineering fact known throughout the industry, however, that some other types of conditioning – such as the removal of load coils on loops greater than 18,000 feet in length – will substantially impair voice service. Load coils are placed on these long loops to correct the general loss of voice quality on loops exceeding 18,000 feet. Therefore, removal of the very devices that were placed in order to provide acceptable voice quality will significantly degrade voice service. The FCC recognized this virtual truism in one recent order, noting that "if load coils or repeaters are needed to amplify the voice signal over a long loop, removal of those repeaters to allow for the transmission of the high frequency signals would ***hamper the quality of the voice service.***"

Although BA-MA would be prepared to demonstrate this engineering fact (and any others like it) once to the Department's satisfaction, it would be a waste of everyone's time were it required – as Covad insists – to demonstrate it every time it receives a request for such a line. BA-MA believes that for any generic types of impairment, it should only be required to obtain Department review and approval once, and again only if a technology change that impacts the outcome occurs. BA-MA would be willing to review unusual or unique types with the Department on a case specific basis as required.

Q. Please comment on Phase II Pricing Issues (Issue 9).

A. Covad recasts pricing issues by again raising the question "[w]hat should be the appropriate permanent recurring and nonrecurring pricing for line sharing." Specifically, Covad presents an abbreviated argument regarding what it should and should not have to compensate BA-MA for with respect to (a) OSS; (b) deconditioning of loops; and (c) loop qualification.

As explained with respect to Issue 2, Mr. Meacham presents costs studies to support new rates in his testimony. The earlier portion of my testimony explains the application of existing rates. OSS rates will be filed for Department approval at a later time, when they have been developed.

It should be noted, however, that Covad's demand in sub-issue (b) that it be allowed free loop conditioning is a blatant overreach from the start. The FCC consistently has rejected the notion that CLECs are entitled to free loop conditioning, most recently in the *Line*

Sharing Order itself. There, the FCC reaffirmed that "consistent with our conclusion in the *Local Competition Third Report and Order*, we conclude that incumbent LECs should be able to charge for conditioning loops when competitors request the high frequency portion of the loop." *Line Sharing Order* at ¶ 87.

Similarly, Covad's sweeping claim under Issue 9(c) that it should not have to pay any of the cost of determining loop qualification "[b]ecause loop qualification is a mechanized OSS process requiring no cost causing work," is both legally and factually incorrect. The *Line Sharing Order* itself provides that "incumbent LECs should recover in their line sharing charges those reasonable incremental costs of OSS modification that are caused by the obligation to provide line sharing as an unbundled network element." *Line Sharing Order* at ¶ 144. Therefore, the costs associated with changes to mechanized processes needed to determine loop qualification are appropriately recovered from CLECs. Moreover, the CLECs themselves have demanded the development of a data base on loop qualification which will give them access to more data than BA-MA provides to its retail business; it is patently unfair that CLECs, such as Covad, not bear the cost for developing such a data base on their behalf. In any event, BA-MA is currently developing the enhancements to its existing mechanized systems which are needed to perform qualification functions performed manually today, and will determine the costs for such enhancements once the development process is concluded. These costs are appropriately recovered from CLECs.

III. Other Tariff Issues Raised By CLECs, and Not By the Covad Arbitration Petition

Q. Please comment on AT&T statements that the Tariff provisions requiring BA-MA to remain the voice carrier are anti-competitive and illegal. (page 3)

A. The FCC Order does not require Line Sharing on voice lines provided by CLECs utilizing UNE-Platform. In fact, the Order specifically said Line Sharing was not required on such lines. (¶72) The FCC Order only required Line Sharing where the ILEC is the voice provider. Since this proceeding concerns compliance with specific FCC requirements, the issue of UNE-P Line Sharing should not be addressed extemporaneously as part of this proceeding. Furthermore, by definition, Line sharing cannot be done on UNE-P. UNE-P is the connection by BA of a loop and a port without the interjection of collocation in the middle. With line sharing, it is necessary to inject a CLEC's splitter collocation arrangement and a CLEC's DSLAM collocation arrangement in the middle of the loop and port, and a different central office wiring configuration must occur than is the case for POTS service. Once collocation and different wiring must occur, it is not the same seamless arrangement contemplated with UNE-P, and certainly a "hands-off" software driven migration is not physically possible.

Q. Are the physical arrangements that an ILEC must establish for a UNE-P CLEC virtually identical to those which the ILEC uses when line sharing with itself or with a DLEC, as AT&T claims and, therefore, is it discriminatory for BA-MA to refuse to

enable a CLEC to use the loop or the OSS to add xDSL capabilities to a UNE-P arrangement? (AT&T Motion for Suspension, at 6-7)

A. Physical arrangements may or may not be the same when BA-MA provides POTS service with line sharing arrangement and when BA provides UNE-P type service with a line sharing arrangement. In fact all of the arrangements that UNI-P providers have requested BA to look at have been significantly more complex with the line at a time BA owned splitter and the associated added complexity mentioned previously in this testimony.

In any case, the systems work is very different. In the former case, BA-MA is combining a set of retail systems and service centers (for the voice) with a wholesale one (for the data). In the latter case, the combination is between a set of wholesale systems for two different wholesale services. Depending on how the business relationships described above are resolved, there would be numerous possible systems changes and service center process changes required.

Q. AT&T claims that mechanized prequalification may not always be appropriate and is costly (pages 15-16). Please comment.

A. Mechanized loop qualification is available for approximately 93 percent of the central offices where collocation is available or pending as of March 2000. The qualification process is necessary and useful for determining basic factors such as the availability of a copper loop, and whether the loop is too long for ADSL service. The absence this database will lead to customer dissatisfaction when the promised product cannot be delivered, and there will be much wasted effort on the part of BA and CLECs in dispatching technicians needlessly. If there is a special case where a CLEC has a unique business plan or unique equipment that truly does not require loop qualification, then BA will negotiate a special arrangement through an Interconnection Agreement, however, since loop qualifiaction is necessary in almost all cases, a charge is approprite in a tariff.

Q. Please comment on AT&T's statement that the manual loop qualification interval should not be longer than it is in New York, which AT&T characterizes as two days. (page 17)

A. BA-MA performs loop qualification in two days; BA-MA takes one additional day to return a FOC.

Q. AT&T complains that BA will not test, repair or upgrade inside wire to clear a trouble associated with a CLEC's xDSL. AT&T states that this is improper, since BA-MA is obligated to provide CLECs with the full functionality of each loop leased through UNE-P or UNE-L. (page 18) Please comment.

A. BA will provide maintenance on its portions of the loop, but will not maintain wiring which it does not own or which is part of another carrier's equipment.

Q. Please respond to Choice One's statement that the monthly maintenance fee for Option A splitter arrangement should be eliminated, since the CLEC owns the splitter. (page 2).

A. In using the carrying charge methodology, expenses are only applied where there is an underlying investment against which to apply the carrying charge. In addition to maintenance, the charge recovers some administrative costs associated with the service as well. BA-MA will be submitting new studies for this rate element that recognize the fact that under Option A, BA-MA does not provide maintenance.

Q. Please respond to Choice One's contention that the CLEC should not be required to pay the cost of transporting the voice portion of the line to BA-MA, and only one termination charge should apply. (pages 3-4)

A. BA-MA's rate proposal passes only additional or incremental costs on to CLECs. Transporting the voice from the splitter back to BA-MA's MDF is not an expense that BA-MA would incur absent line sharing. Therefore, it is completely appropriate to charge the CLEC, as the cost-causer of that incremental cost.

Q. Please comment on Choice One's statement that there should be no monthly recurring charge for the high-frequency portion of the shared line. (pages 4-5).

A. BA-MA's rate proposal in the current tariff does not charge CLECs for the use of the shared line itself. Rather BA-MA attempts to recover only some incremental operating costs. However, BA-MA reserves the right to reexamine this issue.

Q. Please comment on Choice One's claim that Conditioning charges should not be applied. (page 5)

A. When BA-MA incurs incremental costs to condition a line, the FCC *Advanced Service Order* allows for those costs to be passed on to CLECs (¶ 87). Many CLECs have signed interconnection agreements recognizing and allowing for these charges.

Q. Please comment on Covad's contention that the tariff would permit BA to disconnect line sharing arrangements even when the data service does not significantly degrade the voice service. Please comment.

A. BA-MA has agreed to amend the tariff so that BA-MA will only take action when the voice service is *significantly* degraded, as brought about by a complaint from the end user customer. This is consistent with the *Line Sharing Order*(¶¶201-205.

Q. Please respond to Covad's statement that the tariff requires CLECs to pay for Wideband Test Access, even though CLECs would not have access to such test functions.

A. BA-MA is charging for its wideband test expenses. These are necessary costs that BA-MA incurs in its capacity as a wholesaler. As long as BA-MA is responsible for

providing quality wholesale service, BA-MA must have a mechanism for testing and diagnosing troubles in order for repairs to be performed in a timely manner. The wideband test mechanisms deployed are the most cost efficient method for BA-MA to test. Although BA-MA has not developed test access for the CLECs, BA-MA will share information from the tests with CLECs during the trouble shooting process. Finally, these testing charges are consistent with the Act, which allows BA-MA to recover incremental costs of providing these UNE services.

Q. Please comment on Covad's statement that the tariff requires CLECs to provide BA-MA with information about the DSL service on each and every line sharing arrangement.

A. BA-MA requires this information in order to efficiently manage spectrum compatibility, in accordance with the FCC's requirements under its *Line Sharing Order* (¶ 204). Information is required as CLECs add new types of equipment and services.

Q. Please comment on Massachusetts CLEC Alliance's ("MCA") comment that BA-MA's rates for loop conditioning, loop qualification, cooperative testing and wideband testing should be reduced by 70 percent, and that there is no support for the exorbitant charges. (page 4)

A. The Department should judge BA-MA's proposed rates based on the cost support provided by Mr. Meacham. Rates should not be set in Massachusetts based solely on the ruling of an administrative law judge in New York in an interim proceeding, which is what MCA is suggesting. The rates proposed by BA-MA were found acceptable by several CLECs who signed interconnection agreements containing those rates levels, at least on a temporary basis. Although the New York Commission reduced rates filed by BA-NY, that state's cost proceeding is continuing, so any rates ordered are not yet final.

Q. Respond to MCA's comment that BA should be responsible for providing mechanized loop qualification, and that there should be no NRC associated with cooperative testing. (page 9)

- **A.**BA's charging to recover for its cost of providing service is reasonable and appropriate, and consistent with the Act. BA-MA should not be required to provide service free of charge.
- **Q**.Please comment on MCA's contention that the tariff describes the high frequency part of the loop as the range above the voiceband, whereas per the FCC, the requesting carrier is entitled to exclusive use of the entire loop. (page 10)
- **A**.MCA's issue is based on a misunderstanding of BA-MA's tariff. A CLEC wanting to use the entire loop may do so by purchasing the use of the entire loop from a different section of the tariff, other than Line Sharing. For example, if a CLEC wanted to use the entire loop and provide ADSL over a portion of the loop and voice over the other portion of the loop, the CLEC should purchase an entire unbundled ADSL compatible loop from Part B, Section 17 of Tariff No. 17ariff. The CLEC would have exclusive use of that loop.

- **Q.** Please comment on MCA's complaint that Part E, Section 1.1.2.G(6) is vague, open-ended and potentially punitive.
- **A.**That section states that if BA augments its workforce based on CLEC collocation forecasts the CLECs will be held accountable for the accuracy of their forecasts. The clause is both reasonable and equitable. If BA is held accountable for meeting intervals on CLEC collocation orders, CLECs should be required to provide accurate forecasts so BA can prepare to meet those intervals. BA is willing, however, to modify the language and make it less "open ended" to say CLECs will be held accountable ***for costs incurred by BA-MA based on CLEC forecasts***.
- **Q.**Please comment on MCA's comment that Part E, section 3.5.2(B) should be amended by adding the words "set forth in this tariff" following the words "Telephone Company" in the second line. (page 11)
- **A.**BA-MA does not agree with the proposed change. A cost incurred might not be separately identifiable under the tariff; rather it might be part of another larger rate element in the tariff. The proposed language by MCA would not allow BA-MA to collect charges for costs incurred in such case.

    - **Q.** Please respond to Rhythms' comment that the tariff should be revised to explicitly state that no NRC applies to the high bandwidth portion of a shared line (page 9)
    - **A.** As explained above, BA-MA intends to apply non-recurring charges to the loop to recover the costs of connecting the loop to the line sharing arrangement. The cost is not associated with the highband portion of the loop *per se*, but it is associated with the whole loop.
    - **Q.** Please comment on Rhythms' contention that conditioning charges should be removed. (page 11)
    - **A.** The FCC has recognized that ILECs are entitled to recover costs of conditioning. (*Line Sharing Order*,¶ 87) By signing Interconnection Agreements that contain such charges, many CLECs also implicitly recognize that these are legitimate charges. In approving those agreements, and in approving actual rates (*e.g.*, NYPSC), various state commissions have expressed similar sentiments. Mr. Meacham's testimony describes in detail the costs that BA-MA is seeking to recover with these charges.

- **Q.** Does this conclude your testimony?
- **A.** Yes.