COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY

Investigation by the Department of Telecommunications and Energy upon its own motion pursuant to Section 271 of the Telecommunications Act of 1996 into the Compliance Filing of New England Telephone and Telegraph d/b/a Bell Atlantic – Massachusetts as part of its application to the Federal Communications Commission for entry into the in-region interLATA (long distance) telephone market	)	D.T.E. 99-271

TESTIMONY OF JOHN BERARD, MICHAEL CLANCY,
AND MINDA CUTCHER
ON BEHALF OF COVAD COMMUNICATIONS COMPANY

1. My name is Minda Cutcher, Vice President – ILEC Relations for Covad Communications Company ("Covad"). I am responsible for monitoring BA performance to ensure that Covad is receiving wholesale services, unbundled network elements and support in compliance with its interconnection contracts with Bell Atlantic-Massachusetts ("BA-MA") and applicable law. More specifically, Covad has established my position in an attempt to further ensure that it receives retail parity from BA-MA that can adequately support its business operations in this region. Prior to assuming this position, I was Vice President – Operations for Covad's New England Region.

2. Prior to joining Covad, I was employed by the New England Telephone Company (now known as BA-MA) for 20 years. Most recently I was Director of Engineering and Construction for Western and Central Massachusetts for seven years. This job included overall responsibility for design and construction of the

telecommunications network. My group did loop qualification for various digital services, such as ISDN. It also included other loop facilities work.

3. My name is Michael Clancy, Director of ILEC Relations for Covad. Prior to my current position, I performed customer support and operations functions for Covad's New York Tri-State region. In particular, I was responsible for building out Covad's network in New York and all other operations activities.

4. Prior to coming to Covad, I was employed by Bell Atlantic, in various Network Services, Special Services, and Engineering assignments, with increasing levels of responsibility, for over 27 years. My last assignment in Bell Atlantic was Director of Interoffice Facility Provisioning and Process Management.

5. My name is John Berard, Director of ILEC Relations for Covad. I am responsible for monitoring ILEC operational performance to ensure that Covad is receiving wholesale services and support in compliance with the interconnection contracts and applicable law. Prior to coming to Covad, I was employed by New England Telephone Company (Bell Atlantic – Massachusetts) for 14 years. I served many roles including: Planning Manager for Inter Office Facilities, Staff Director for Outside Plant Engineering and Construction, and most recently just prior to leaving Bell Atlantic I was an Engineering Manager in the Massachusetts Facilities Management Center.

6. The purpose of our testimony is to respond to Bell Atlantic-Massachusetts's ("BA-MA's") Supplemental 271 Filing made on May 26, 2000 with the Department of Telecommunications and Energy ("DTE" or "Commission"). Our testimony concentrates on loop provisioning issues. In particular, we respond to

BA's statements that it is now providing nondiscriminatory access to unbundled loops.

7. BA-MA claims that it offers access to unbundled network elements such as loops in the same manner and of the same type provided by Bell Atlantic in New York and approved by the FCC. It is our understanding that the FCC never found that BA satisfied the checklist with respect to DSL issues. Rather, the FCC found that proof of compliance was excused and that no future applications would be passed on this basis. BA-MA also claims that it has provided sufficient evidence that it provides unbundled local loop transmission for the provision of both traditional voice services and various advanced services in a non-discriminatory manner. More specifically, BA-MA contends that for unbundled loops, it meets performance measurements for on-time performance as scheduled, installation quality, and provisioning intervals.

SUMMARY OF TESTIMONY

8. Covad's experience is quite to the contrary:

- Bell Atlantic fails to complete office wiring on time;[1]
- Bell Atlantic fails to complete loop installation work (activities in the field) on time; and
- A significant number of loop orders require multiple dispatches
- On average, it takes nearly 40 days for Covad to provide DSL service to its end users. The primary reason for this long interval is BA-MA's failure to complete loop installations on time. This interval starkly contrasts with the

[1] Covad's analysis is very conservative because the loops analyzed included backlogged orders. Taking out late loop orders, BA's performance would be significantly worse.

interval BA-MA promises it's DSL customers. BA-MA has promised its DSL customers service in 7-10 days.

Background on Covad

9. Covad is a facilities-based competitive local exchange carrier offering high-speed, secure digital communication services between Internet Service Providers and their customers and between corporations and their employees working at home. Covad uses a variety of digital subscriber line ("DSL") technologies to provide a private, packet-based network connection that is secure and reliable. Covad is the largest DSL provider in Massachusetts and was the first to offer a residential DSL service. Utilizing standard copper unbundled loops, data packets are transported using DSL technology from the home to the central office. Covad can also provide its DSL service over fiber-fed loops. Covad aggregates traffic from each central office on its regional network through its Regional Data Center, and then delivers the traffic to the corporate network or to the network of the customer's ISP. Covad was the first DSL provider to offer a service specifically tailored to residential customers. Covad's residential service allows consumers to access the Internet through a secure, reliable, and fast connection of 384 or 768 kilobits per second. Residential customers also have the option of choosing Covad's business level service.

DSL Technology

10. DSL is a transmission technology for sending digital signals over standard copper telephone lines. DSL can transmit a greater amount of information over local loops in a given period of time than analog or ISDN. DSL is the first

commercially available, affordable technology that enables broadband speeds over standard telephone lines from the central office to the home, often called "the last mile." There are a number of different "flavors" of DSL technology including Asymmetric DSL ("ADSL"), High bit rate DSL ("HDSL"), ISDN DSL ("IDSL"), Very high bit rate DSL ("VDSL") and Symmetrical DSL ("SDSL"). The different types of DSL are based on the speeds at which data is transmitted.

11. Although there are other significant differences in the various DSL "flavors," the main difference is bandwidth. The speed of DSL service can range from 144 Kbps in each direction (IDSL), to 768 Kbps or 1.1 Mbps in each direction (SDSL) or 1.5 Mbps delivered to the end user and 384 Kbps sent to the ISP or corporate network (ADSL). So, Covad's service speeds range from moderately slightly faster than the ISDN maximum to over 10 times the speed of ISDN. Typically, HDSL has been deployed to replace expensive T-1 lines in the business-to-business and business-to-Internet segment of the market. Covad uses ADSL and SDSL for the home-to-business and home-to-Internet segments depending on the enduser's requirements, and IDSL is being used mainly where the local loop is incapable of supporting higher data rates but is electronically compatible with ISDN.

12. The breadth and scope of Covad's DSL offerings contrast sharply with the one type of DSL service BA-MA currently provides. While Covad launched its service in Massachusetts in November, 1998, BA only began offering DSL service in Massachusetts in approximately May, 1999. While Covad offers speeds slightly faster than the ISDN maximum to over 10 times the speed of

ISDN to anyone – residential or business -- within the reach of its high-speed network, BA's Infospeed service is limited to ADSL and to residential customers who live within 15,000 feet of their central offices. It is important to note that BA-MA offers ADSL service only over existing "in-use" telephone lines, a process called line sharing. CLECs, on the other hand, have had to order a new, stand-alone telephone line into the home or business it wishes to serve. Only recently, since being ordered by the FCC to do so (and forced to agree to implementation commitments by the NY Public Service Commission), has BA-MA allowed CLECs to do the same.

Covad's Unbundled Loop Requirements

13. BA has perpetuated the myth that CLECs like Covad are essentially "special interest" CLECs that need special treatment, special facilities, special systems and special processes to obtain the loops they need to provide broadband services like DSL. For example, in its New York 271 case, BA attempted to explain away its inability to provision loops used for DSL service by claiming that there is a particular type or kind of loop that Covad needs to provide DSL service. BA-NY claimed that because CLECs like Covad needed different kinds of loops, more cooperation was needed between the parties, more time was needed to learn new tasks, and more experience was needed to improve provisioning.

14. BA-MA has adopted the same tactic in this case. For example, BA-MA attaches as Exhibit F to BA-MA's Checklist Affidavit, a document created in the New York DSL Collaborative which contains most of the support for its claim that there are vast technical differences between loops used for voice and loops used

for DSL. In its Supplemental Filing, BA claims, "[s]ince these loops must meet specific technical criteria, they must first be 'qualified' and then provisioned in a cooperative effort with CLECs."[2]

15. Also to this end, BA has created a number of unbundled loop "products" -- 2-wire ADSL, 2-wire HDSL and 4-wire HDSL loops -- that are really nothing more or different than the loops that are and can be *immediately* used to provide voice service with some exceptions.

16. Call it what you want, a loop is a loop regardless of the service that a CLEC wants to provide over it. BA's DSL loop labels are really nothing more than a designation that the loop is made fully of copper, which accounts for most of the loops in BA's outside plant inventory.[3] Thus, the majority of BA's loops can immediately support DSL or digital services *without any extra work*.

17. At the most basic level, provisioning loops that will be used for DSL or digital services is *no different* from provisioning a second line for voice service. BA must: (1) complete cross connections in the central office where CLEC equipment is collocated in order to connect the CLEC network to the unbundled loops; (2) complete installation work on the loop after it leaves the central office to the end user's premises; and (3) test the line for continuity and connectivity. Such installation activities include running the loop to the end user's Network Interface Device ("NID") and tagging the loop so that the CLEC technician knows the location of the CLEC customer's loop. These are the *exact same kind* of activities BA-MA technicians perform every day on thousands of loops for thousands of

[2] BA-MA Supp. Filing at 62.
[3] The national statistic is that 75% of all loops can support analog *and* digital services.

customers and for which BA has plentiful experience. And these are exactly the same kind of activities that BA-MA is routinely failing to perform on Covad's loops as will be discussed herein.

18. And the technical criteria that BA claims differentiates DSL loops from analog loops do not explain why BA is failing to timely provision loops to Covad. In Exhibit F to the Checklist Affidavit, BA lists five criteria that distinguish DSL loops from voice loops: (1) absence of dial tone[4]; (2) absence of battery power[5]; (3) use of digital transmission loop electronics[6]; (4) absence of mechanized test access[7]; and (5) requirement for loops with defined electrical characteristics.[8]

19. The absence of dial tone and battery power does not explain why BA is failing to complete the cross connections in the CO and failing to complete installation work to the end user's premises. The real explanation for these failures is the fact that BA has not committed enough technicians in the central office and in the field to handle the volume of loop orders that it receives. Additionally, BA does not properly manage the CLEC orders to ensure that roadblocks they encounter are addressed in a timely fashion.

---

[4] BA explains, "DSL UNE Loops do not have dial tone, hindering line identification or automatic number identification ("ANI") and simple continuity testing during circuit installation and maintenance testing." Exhibit F at Page 2.

[5] According to BA, "Traditional telephone services are powered by a battery power source at the CO. This power source is not used in a DSL UNE Loop. Absence of battery power complicates identification of circuits during circuit installation and maintenance testing." Exhibit F at Page 2.

[6] BA says, "DSL UNE Loops require additional electronic components in the circuit. This complicates installation and often requires removal of equipment at the end-user premises, such as half-ringers." Exhibit F at Page 3.

[7] BA claims that unlike for voice loops, there is mechanized test process for DSL loops. Exhibit F at Page 3.

[8] BA explains, "Some defined DSL loop characteristics include maximum loop length, allowable bridged-tap and loading coil limitations. It is important to note that DSL cannot be installed on loops having load

20. Moreover, testing loops used for digital services should not be an impediment to provisioning. BA technicians need only use a handheld testing device to check for continuity on the line. BA uses a Sidekick meter when installing ISDN. The same meter can be used to test a DSL circuit. BA uses a "Brown" meter, a type of volt-ohm meter, to test line defects on dial tone loops. That same test equipment can be used to test DSL loops. BA is aware that there is "white noise" on DSL loops**.** That "white noise", like dial tone, can be used to trace a DSL service through the telephone plant. BA uses Sunrise Telecom and Hewlett Packard handheld test equipment to provision their own DSL services; they could use those same devices to test DSL they sell on a wholesale basis. BA routinely performs this test for loops its customers are using for ISDN.

21. We would add that we have had many joint meetings with BA in the Massachusetts area to help BA understand the type of loop capabilities we need. At that time, we offered BA routers so that they could synch up signals. We explained to BA what white noise versus dial tone sounds like so that BA technicians would know to listen for it. Also, we brought BA technicians to our collocations to show them our equipment and to help them understand the technical aspects of DSL service.

22. Criteria (3) also does not explain away BA's provisioning difficulties. The existence of a half ringer on the line should not prevent BA from finishing the task of central office cross connections and from completing the field installation. Half ringers are installed at the customer's Network Interface Device. If

---

coils (a common technology used to extend the allowable loop length of voice-grade circuits) and generally cannot be installed over fiber-optics." Exhibit F at Page 3.

anything, the existence of half ringers would be discovered *after* BA has finished its installation work. Either the BA or Covad technician would discover that the line is not working.

23. Half ringers are not an uncommon issue to BA. They are a Metallic Test Unit ("MTU") that BA placed on the line to more efficiently test POTS service. When BA installs a second line for POTS (or a CLEC's stand-alone loop), BA must dispatch a technician to assure that there is continuity to the end user's premise at the NID. On this dispatch, the BA tech also performs cross connects in the cross boxes and connects the drop wire to the customer premises. Since BA technicians are dispatched for all of these activities anyway, disabling a half-ringer is a simple added step that takes a few minutes. The lack of mechanized test access also does not excuse BA's poor provisioning. Most troubles experienced to date are simple metallic troubles that would fail a voice line. Although mechanized test access is not yet available for digital loops, existing test processes are sufficient to identify most of the common troubles on a telephone line. For example, BA uses a Mechanized Loop Test ("MLT") that is a test process that is integrated into the switch and that gives adequate information to identify most troubles on a telephone line.

24. The only potentially plausible excuse for provisioning difficulties advanced by BA is criteria number (5) – requirement for loops with defined electrical characteristics. However, for the most part, Covad is not ordering loops that have these characteristics; Covad is only ordering short loops (under 18,000 feet from

the central office). Moreover, this criteria is relevant for only a minority of loops in BA's inventory as will be discussed in the following section.

Loop Conditioning

25. There are, broadly speaking, essentially two types of conditions on a loop that can affect DSL -- loop length frequently associated with load coils and bridged taps and the presence of Digital Loop Carrier ("DLC"). With loops that are longer than 18,000 feet, BA has installed certain devices on the copper line to enhance and/or support voice service.[9] These devices are called load coils and bridged taps and they can impede digital transmissions. For example, both ISDN and DSL services are affected by these devices because of encumbrances that are placed on the line to support voice service. These encumbrances must be removed for the loop to be able to support DSL or digital transmissions, a process called conditioning.

26. However, the activities involved in conditioning loops for DSL are not out of the normal for BA. Loop conditioning involves routine maintenance and provisioning activities that are performed on a loop to make it capable of transmitting *voice or data.* BA has been performing loop conditioning for over 10 years. Loop conditioning is not something special that only xDSL providers need; BA regularly grooms its network to support the multitude of services they provide over loops. For example, BA conditions loops for its own purposes to provide voice, ISDN, and DSL services -- to name a few services -- to its retail customers.

---

[9] Short loops do, on occasion, have load coils but this is not common.

27. Load coils: Load coils are devices that compensate for signal loss in the voice frequency that occurs with longer loops. The problem is that load coils were designed to condition a loop in order to solve a particular problem – boosting the signal strength of plain old telephone service. Unfortunately, load coils block the higher frequencies used by digital data signals of xDSL transmission technologies.

28. Bridged Taps: In order to account for various network configurations, ILECs, like BA, installed copper wire with a number of spurs leading from it that could be tapped into depending on where the end user was ultimately located. These spurs are called bridged taps. Typically, xDSL signals can work acceptably in the presence of a small amount of bridged taps – just how much bridge tap can be tolerated depends on the xDSL technology that is used. In any event, the presence of bridged taps cause significant reflection and attenuation impairments when signals encounter a bridged tap that is of resonant length. In addition, the more bridge taps that are present, and especially the presence of taps of resonant length, the more difficulty they cause to xDSL service.

29. Digital Loop Carrier ("DLC"): Another factor that affects xDSL service is the presence of DLCs. ILECs like BA are increasing the amount of fiber in their networks. With a fiber-based network configuration, there is typically a fiber feeder facility that runs from the central office to a remote location such as a remote terminal, where the DLC is located, and then a copper facility that runs from the remote terminal to the end user's premises. While DLC systems facilitate the transmission of digital signals along the loops they serve, bandwidth

and signal characteristics are limited by the functionality and equipment that forms part of the DLC. And because DSL is a copper-based technology, CLECs like Covad need a viable way to gain access to the remote terminal where the copper facility resides. BA-MA claims that its new products called Unbundled Sub-Loop Arrangements ("USLA") and collocation at remote terminal equipment enclosures ("CRTEE") sufficiently address this situation. Covad disagrees. This issue is discussed in more detail in the Covad/ Rhythms joint testimony filed on July 10, 2000 in DTE 98-57 (Phase III) which should be incorporated in this proceeding.[10] At this time, Covad is limited by the equipment BA is deploying in its DLC to providing its IDSL service, Covad's lowest speed service. Covad would like BA to deploy DLC to support the multiple "flavors" of DSL that Covad can provide and customers are requesting.

Long Loops

30. As mentioned above, Covad is not now providing DSL service to customers who are served by long copper loops. The conditioning charges that BA-MA imposes on CLECs (Digital Designed Link "services") make it infeasible for Covad to offer service to these customers. In this way, BA has succeeded by imposing excessive costs on us, in limiting Covad's DSL service.[11] Therefore, all of the loop provisioning problems Covad has experienced are with short, copper loops. Covad is also using fiber-fed loops but customers served by these loops are limited to Covad's slowest DSL service. These customers would be able to get

[10] Covad/Rhythms Direct Panel Testimony of Kravtin, Riolo, Williams, and Clancy.

[11] By preventing Covad from offering such service, BA has completely foreclosed consumers from that choice, and has insulated its outdated ISDN services from competition. In this way, Covad cannot, by BA's pricing practices, distinguish its DSL service from BA's InfoSpeed.

superior service over fiber-fed loops if BA offered an acceptable means to deploy CLEC equipment in remote terminals.

31. BA does not understand Covad's discrimination claim. Covad's lowest speed service, IDSL, competes directly with BA's ISDN service.[12] BA does not offer IDSL. Covad has experienced numerous instances where it must turn away a customer served by a long loop because the conditioning charges are too high. The end user then approaches BA to obtain its ISDN service and gets the service free of any extra charge for conditioning. This is blatant discrimination.

Loop Acceptance Testing

32. BA claims that loops used for DSL have to be provisioned in a cooperative effort. BA is being deceptive. The reason that loop acceptance testing (also known as "cooperative testing") is being done is because of BA's abysmal loop provisioning performance. Loop acceptance testing is *yet another* hand-holding activity that Covad has to endure in order to get loops. No business should be expected to tolerate such horrendous service from its wholesale supplier. Indeed, no customer should have to wait 40 days or more to get DSL service.

33. Furthermore, Covad asked BA for a fix for loop provisioning problems beginning in March, 1999. Covad specifically requested cooperative testing but BA refused to do this. Covad first received BA's commitment to acceptance test loops in the context of a New York 271 hearing in July, 1999.[13] **(**Make no mistake: this process came about as a direct result of regulatory pressure imposed on BA by the

[12] ISDN offers a moderately faster speed of service to IDSL but is a dial-up service. The primary advantages of IDSL is that it is always on, does not require dial-up to obtain high-speed access to the Internet, and provides unlimited use for an affordable flat fee.
[13] In June, 1999, BA had informally agreed to a geographically limited trial of cooperative testing.

NY PSC to improve inadequate loop performance. Loop acceptance testing as it is being implemented in the BA region, entails the following activities:

- Two days before a loop due date, Covad conducts its Harris Test and provides BA with a report from this test on the day before a loop is due. BA has committed to CLECs that it will have CO wiring completed two days before a loop due date. This CLEC report serves as an early warning system to BA that it needs to complete the central office cross connection by the next day, the due date. In sum, Covad is giving BA another opportunity to complete CO wiring in time.
- On the due date, BA is supposed to call Covad and, together, BA and Covad test the loop to see if it is correctly provisioned. If the loop is correctly provisioned, Covad gives BA a serial number. If the loop fails the cooperative test, Covad has to open a trouble ticket. If a loop is not tested, BA must provide Covad with the reason for not conducting testing.
- On the day after the loop due date, Covad again conducts the Harris Test and analyzes the results. BA and Covad compare their respective data and do root cause analysis on the failed installs.
- Each day, BA and Covad compare lists of loop orders due the next day to ensure that both parties agree about the specific loop orders that must be provisioned.

34. Thus, much of the cooperative testing process is really *corrective* testing in that it is replete with reports from Covad that: (1) remind BA to perform simple cross

connect activities in the central office (FOC-2 report) and (2) inform BA that it has failed to perform the installation on time (FOC+1 report).

Summary of BA's On-Time Provisioning

35. In summary, BA-MA:

- Fails to provide due dates or firm order commitments ("FOCs") on time;
- Fails to complete cross connections in the central office that connects Covad's equipment to the main distribution frame where Covad has access to unbundled loops;
- Fails to complete installation work on the loop after it has left the central office;
- Fails to address certain facilities problems.
- has not properly planned and constructed the facilities as needed, thus causing CLECs to deny service to their customers.

36. We will provide data supporting these facts at the technical hearings.

Late Due Date Delivery

37. The first point of delay in loop provisioning occurs when BA fails to deliver a due date to Covad on time. This compares with what BA does for itself, which is to provide a due date to its retail customer at the time the customer places an order for service. BA obtains a substantial competitive advantage by being able to immediately tell a customer when service can be installed. We believe that many customers will choose the service that gives them an install date on the spot over the service that takes an indefinite period of time before even committing to providing the service.

38. BA-MA complains that Covad incorrectly measures late due dates from the first date that Covad submits an order and *not* from the date on which Covad submits an order that BA deems to be in acceptable form. This is true but is justifiable for the following reasons. BA's ordering system – Graphic User Interface ("GUI") – is an inherently error-prone system that BA exacerbates with a hyper technical attitude. For one, it is exceedingly difficult to fill out the loop order because so much information has to be retyped from Covad's system to the BA system. BA has failed to pre-populate the order forms to reduce this wasteful and error-generating retyping. This situation would not exist if BA had expeditiously deployed EDI. Secondly, BA returns queries without sufficient information on the error for Covad to easily and quickly correct the problem. Correcting the order error takes an excessively long time and necessitates numerous calls to the TISOC for assistance. Also, TISOC access and hours of operation do not meet our requirements (or that of other CLECS) We still have many FOCs that need to be tracked down. For this reason, an inordinate amount of Covad's orders are returned (a process called a "query"). The Testimony of James Katzman and Bogdan Szafraniec addresses this and other OSS problems in more detail.

Failure to Complete Central Office Wiring

39. The next point of failure in the loop provisioning process occurs at Covad's loop test. At midnight, Pacific Standard Time, on the due date, Covad performs a loop test – called the Harris test. This test is automatically performed using test equipment that is located in Covad's collocation arrangement in coordination with Covad's Network Operating Center ("NOC"). The NOC monitors Covad's regional network. The

Harris Test can determine whether a loop has been installed and also provides some loop information such as loop length and the presence of load coils and other encumbrances. Thus, the first time that Covad would know that a loop either has not been provisioned or is not useable for DSL is at the Harris Test.

40. There are a number of reasons that a loop will not pass the Harris Test, for BA-, Covad-, and customer-causing reasons. The most frequent reason for loop test failure is because BA did not cross connect the loop at the central office. Other BA-caused failures include failing to install the loop altogether and provisioning a defective loop. These aren't problems that only affect DSL companies; all of these problems would affect either voice or data service. Upon receiving a failed Harris Test result, Covad opens a trouble ticket with BA to clear the problem.

41. Unfortunately, the Harris Test does not identify every kind of problem that will prevent Covad from using a loop. For example, while the Harris Test will provide information on whether a loop is leaving the central office (CO wiring has been completed) it will not indicate if a loop has been provisioned to the wrong place.

Loop Problems at Installation

42. Assuming that the trouble has been cleared, the next time at which Covad would know that a loop is not operable or has not been provisioned is when Covad does a truck-roll or, in other words, sends out its technicians to do Covad's installation. We would note that BA's loop provisioning is so fraught with delay and frustration that Covad adds extra days to the customer service interval. This cushion of time is necessary to work out the various provisioning problems that Covad encounters in order to get a simple, unaugmented copper loop from BA.

43. At the truck-roll, Covad has experienced that: (1) loop has not been installed; (2) loop has not been identified or tagged; (3) defective loop has been installed; (4) loop was terminated at the wrong place (in the basement of a multi-dwelling unit instead of to the customer's premises); (5) loop has a facility problem. At the truck-roll some loops remain unconnected at the central office – even after Covad has opened a trouble ticket with BA and BA has closed the trouble ticket.

44. Issue (1) above occurs because BA has not assigned technicians in the field to handle the amount of loop installations BA must perform. This is called a force-to-load problem – BA's assigned workforce cannot handle the load or demand for loops. Although BA has added technicians to the field that improved loop provisioning for a short period of time, as volumes increase, Covad is again seeing force-to-load problems. This is despite the fact that Covad has provided BA with detailed forecasts so that BA knows order volumes ahead of time to be able to plan workforce assignments.

Facilities Issues

45. There has been a dramatic increase in facilities issues since the technical hearings last year. There are at least two major facility problems encountered by Covad. One is that BA claims that there are no facilities running to the end user's home or business. In this situation, BA requires that Covad cancel the loop order and turn away the customer. BA has offered absolutely no relief to Covad when faced with a supposed "no facilities" situation. We'd add that Covad has no way to determine whether there are, in fact, no facilities available. Full and complete and easily accessible loop information is not yet provided by BA. However, even if there really was a facilities

problem, BA refuses to find or build copper facilities to meet Covad's customer's request for service. BA rarely turns away a customer and will make every effortto find and/or build facilities to meet its customer's request for service. In fact, BA requires its technicians to find or build facilities within 30 days or be penalized. Thus, this is a clear instance of discrimination.

46. The second major facilities problem is that BA claims there is no copper available. This situation is presented when DLC is present, where BA is now using fiber optic lines to feed remote terminals, which then connect to end user premises through copper lines. As mentioned earlier in this testimony, DSL is a copper-based technology. If no copper exists to a particular end user's home or business, either the Covad customer cannot at all get the service he or she requested (and the order is cancelled) or the customer must accept a downgraded service.

No Access

47. BA mentions that there is a significant percentage of Covad's orders that are not completed because of "no access" or because BA cannot gain access to the end user's premises to complete the installation. BA claims that 30% of loop orders are not completed because of no access to the end user's premises. We would note that no access is a problem mostly in New York. Covad does not have as significant a problem with no access in Massachusetts.

48. Covad has closely analyzed the "no access" problem in New York. This analysis was conducted because, in New York only, according to BA, Covad faces a 30% no

access problem.[14] No access is a serious problem because it causes a significant delay in service installation. Covad's end users have to stay home more than one time for BA to complete its installation, which makes Covad's end users and customers frustrated and unhappy. Subsequent appointments are often at least a week later than the original date, adding more delay. In some instances, end users report that they were indeed home when BA reported the no access. This puts us in a "he-said, she-said" situation with our customers. Also, Covad incurs a financial penalty from the ILEC for each no access situation and for the processing to generate the new date. Covad has every incentive, therefore, to reduce the no access problem.

49. Covad's informal analysis looked at 131 orders (from March 6 - 10, 2000) that, according to BA, were not installed because of Covad- or customer- caused no access. Covad's analysis uncovered that in fact *less than 50%* of the no access orders were caused by Covad or Covad's end user or customer.

50. Covad's findings were as follows:

- 53% of the 131 orders (or 70 orders) were "no access" because BA gave Covad insufficient notice that they would be coming out to the customer's premises. For these 61 orders, BA gave Covad only 2 days' notice which is insufficient time for Covad to contact its end users. We would also note that every one of these 61 orders was scheduled as a subsequent due date to the original install. Had BA completed the work on time the first time, this entire communication issue would not have existed. Taking this into account, Covad-caused no access orders are reduced from 131 to 61 orders.

[14] Covad has been using BA-provided data on the no access problem because it has not yet completed its own analysis of this problem. Covad does not in any way concede that BA's data is accurate. In fact,

- For 1% of the 131 orders, BA included in the no access category orders that could not be completed because the BA technician could not gain access to *BA-owned facilities*. Here again, this reduces Covad-caused no access.

51. In conclusion, there is much reason to doubt BA's characterization of Covad-caused no-access situation. Many of the so-called no-access orders that Covad analyzed were caused by BA's provisioning failures. This suggests that BA cannot necessarily explain away these unsuccessful loop orders on the basis of no access.

ISDN to ADSL Loop Conversions

52. When Covad first began ordering loops from BA-MA in November, 1998, ISDN or premium loops were the only digital loops available. When DSL loops became available in May, 1999, Covad nearly discontinued altogether ordering premium loops. Today, the majority of Covad's loops are DSL loops.

53. As BA converts its network to fiber, it rolls end users' service from copper facilities to fiber facilities. BA will not roll a customer to fiber, however, if the customer's line is tagged or identified as needing the copper facility. BA's system identifies the line in a way that prevents the roll-over from occurring. Because DSL service depends on copper, the service would be lost if BA rolled the customer to fiber.

54. Since approximately August, 1999, there have been many instances where Covad's customers have been disconnected because of BA's copper-to-fiber rolls. BA promised to fix this problem by December, 1999. It still has not. Covad's customers still lose service because of BA's copper-to-fiber conversions.

55. Although BA has finally started the process of converting the records to correct this problem, there is no definitive completion date and fiber rolls continue to take Covad

---

Covad's analysis of no access orders in New York revealed serious flaws in BA's data.

customers out of service on a weekly basis. BA's customers have not been impacted by this issue because BA ensures that their customer's loops are properly identified. Covad has raised this issue multiple times and to several BA executives. BA has only started to work on this critical problem within the last two weeks and has not provided a timeframe for completing the activity to properly identify Covad's customer's loops.

56. This concludes our testimony on loop issues.