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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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Implementation of the Local Competition Provisions in the Telecommunications Act of 1996	)))	CC Docket No. 96-98

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ERRATUM TO COMMENTS OF
NET2000 COMMUNICATIONS, INC.

On Wednesday, May 26, 1999 Net2000 Communications, Inc. ("Net2000") filed comments in the above captioned proceeding. Subsequently, Net2000 discovered that pages of the pleading originally numbered 24 and 25 were omitted from the pleading filed with the Commission. The information originally set forth on pages 24 and 25 is attached hereto, along with some additional corrections that have changed the pagination of the document. A corrected version of Net2000's filing is attached hereto. Please associate this corrected version with Net2000's filing.

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June 1, 1999

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Implementation of the Local Competition Provisions in the Telecommunications Act of 1996	)))	CC Docket No. 96-98

COMMENTS OF NET2000 COMMUNICATIONS, INC.

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May 26, 1999

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SUMMARY

The Commission should take this signal opportunity to survey the competitive landscape three years after it released its groundbreaking *Local Competition Order* that spawned a new wave of competitive entrants such as Net2000. Based on the record that carriers like Net2000 are setting forth in this proceeding, it is clear that national, minimum unbundling rules remain essential to the development of facilities-based local competition.

The Commission should not prematurely eliminate any of the modes of competitive entry contemplated under the Act. The ability of CLECs to use UNEs, both individually and in combination, must be maintained. Moreover, Net2000 submits that the Commission should make additional UNEs available that will allow competitors to serve the overwhelming demand for broadband services. In addition, the Commission must reject any proposal that would allow states to prematurely eliminate any UNE established by the Commission. Instead, the Commission should ensure that states are free to add additional UNEs to the Commission's minimum national list.

Application of the Section 251(d)(2) unbundling standards clearly demonstrates that local loops, the NID, switching capability, interoffice transport, signalling networks and call-related databases, OSS and operator services/directory assistance all meet the "impair" test, and therefore should remain on the Commission's national, minimum list of UNEs. Moreover, Net2000 submits that the definitions of these UNEs should be modified to make explicitly clear that cross-connects must be included with loops, and that all varieties of loops, including "clean copper," high capacity, and dark fiber loops, must be unbundled. Furthermore, consistent with the Section 251 standards, the Commission also should establish several new UNEs critical to the development of widespread local competition and the delivery of broadband services,

including the expanded extended link ("EEL"). Clearly, facilities-based competitors' ability to deliver alternative service offerings to consumers has been and will continue to be diminished materially by the absence of unbundled access to ILEC extended link, intraMTE wiring, data, and multiplexing/aggregation/routing facilities.

The Supreme Court's landmark decision reinstating Rule 315(b) removes any doubt that the Commission may: (1) require ILECs to make available any technically feasible UNE combination; (2) ensure that ILECs may not in any way restrict the use of UNE combinations; and (3) specify that UNEs need not be combined at the collocation space of the requesting carrier. To further promote competition, the Commission should re-affirm its TELRIC pricing standards consistent with the Supreme Court's decision.

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

Implementation of the Local Competition Provisions in the Telecommunications Act of 1996	)))	CC Docket No. 96-98

Comments of
Net2000 Communications, Inc.

Net2000 Communications, Inc. ("Net2000"), through counsel, hereby provides its Comments to the Commission in the above-captioned proceeding.[1]

INTRODUCTION & SUMMARY

Net2000 is a facilities-based competitive local exchange carrier ("CLEC") and an integrated communications provider, headquartered in Herndon, Virginia. Net2000 began operations in 1993 as a sales agent for Bell Atlantic. After quickly establishing a reputation for superior service and an expert sales staff, Net2000 became Bell Atlantic's #1 Authorized Distributor from 1995 through 1998. When the local telecommunications market was opened by the Telecommunications Act of 1996, Net2000 determined that it could best serve its customers by establishing its own facilities-based network. In June 1998 Net2000 became an independent CLEC and began to offer a full complement of both local and long distance services. Net2000 currently serves business customers with a full portfolio of local, long distance and data services throughout the mid-Atlantic and northeast regions via its advanced fiber optic network. Net2000

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1 Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, CC Docket 96-98, *Second Further Notice of Proposed Rulemaking* (rel. Apr. 16, 1999) ("*FNPRM*").

is ranked in the Deloitte & Touche LLP 1998 list of Fastest Growing Technology Companies, ranking 5th in the regional "Fast 50" in Virginia and 72nd in the national "Fast 500."

In deploying its network, Net2000 has adopted a "smart build" strategy. Net2000's "smart build" strategy involves installing a Nortel DMS 500 switch in each local market that Net2000 intends to serve and leasing incumbent local exchange carrier ("ILEC") transmission facilities, including interoffice transport, local loops and multiplexers. Net2000 interconnects its local switches with ILEC tandem switches and long distance provider points of presence, known as "POPs." While Net2000 will initially lease its local network transmission facilities, Net2000 plans to replace leased capacity with its own fiber-optic facilities upon generating sufficient traffic on its switches in specific ILEC central offices. By the end of 1999, Net2000 plans to have several switches installed throughout the Bell Atlantic footprint. Net2000 plans to expand into other ILEC territories in the year 2000. Net2000 is also deploying a nation-wide data network that will extend from Los Angeles to Boston by the end of 2000.

I. IN DEFINING THE NECESSARY AND IMPAIR STANDARD THE COMMISSION SHOULD ENSURE THAT EACH OF THE ACT'S METHODS OF MARKET ENTRY REMAIN OPEN TO COMPETITORS

Nationwide, uniform UNE minimum standards are necessary to ensure that competitors have reasonable access to all local markets served by ILECs, and in creating a nationwide minimum list of UNEs the Commission should ensure that each of the three entry modes contemplated by Congress – self provisioning, unbundled elements, and resale – remain viable means of competing in local markets. Thus, in clarifying the "necessary" and "impair" standards in this remand proceeding, the Commission must be cognizant of its obligation to keep

all pathways to local competition open by setting forth consistent national rules regarding the terms and conditions of establishing, providing, and retiring UNEs.

A. Nationwide, Uniform UNE Minimum Standards Are Necessary to Ensure That Competitors Have Reasonable Access to All Local Markets Served by Incumbent LECs

In the *FNPRM*, the Commission tentatively concluded that it "should continue to identify a minimum set of network elements that must be unbundled on a nationwide basis."[2] The Commission should adopt this tentative conclusion and establish nationwide unbundling rules. Such nationwide rules would be consistent with the Commission's past practices, and would serve the "national policy framework" goal underlying the Act.

In stating its tentative conclusion to adopt nationwide unbundling rules, the Commission referred back to its decision to issue such rules on August 8, 1996, in the *Local Competition First Report and Order*.[3] The Commission has no reason to reach a different conclusion now. In the *Local Competition First Report and Order*, the Commission stated that it could not point to any justification for allowing access to a technically feasible UNE in one state but not another, in part because it recognized the need for nationwide rules as a source of consistency for both ILECs and CLECs. The Commission also recognized that nationwide unbundling rules serve to equalize the bargaining positions of interconnecting parties, especially since many CLECs seek to enter nationwide or regional markets. It also noted that uniform nationwide rules would avoid re-litigation of the same issue in dozens of jurisdictions and would

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2 *FNPRM* at ¶ 14.

3 *FNPRM* at ¶ 13.

reduce the administrative burdens placed on state commissions by facilitating more efficient arbitrations.

In addition, nothing in the Supreme Court's *Iowa Utilities Board* decision[4] suggests that the Commission should revisit it initial decision to adopt nationwide unbundling rules. Indeed, the decision reinforced the Commission's authority to establish such rules by affirming the Commission's statutory authority to adopt nationwide rules designed to implement Section 251, including rules regarding access to UNEs and a national pricing methodology. The Court acknowledged that the 1996 Act extended the reach of the Communications Act into what had previously been addressed exclusively on a state-by-state basis, noting that, with respect to matters addressed in the 1996 Act, Congress had "unquestionably" shifted regulation from the state to the federal level.[5] Thus, the Commission clearly has authority under the Act to adopt nationwide rules regarding access to UNEs.

Net2000 supports the view expressed by the Commission that nationwide unbundling rules greatly reduce the already substantial barriers to entry in local telephone markets. Such rules allow CLECs to avoid having to develop multiple network configurations and marketing strategies, depending on a particular state's list of available UNEs. Under a nationwide list of available UNEs, CLECs can formulate a single business plan that relies upon access to one or more of those UNEs, knowing that the plan can be implemented in a number of markets. As a result, one of the most critical business decisions – namely, which markets to

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4 *Iowa Utils. Bd. v. FCC,* 120 F.3d 753 (8th Cir. 1997) (*"Iowa Utils. Bd"*), *cert. Granted sub nom., AT&T Corp. v. Iowa Utils. Bd.,* 118 S.Ct. 879 (1998), *aff'd in part, rev'd in part,* 119 S.Ct. 721 (1999) (*"AT&T"*).

5 *AT&T* at 730 n.6.

enter – would be market-based rather than determined by individual state regulation. The alternative, a geographic patchwork of access to varying lists of UNEs, could require carriers to revise, if not entirely reformulate, their business plan dozens of times. This would significantly increase carriers' expenses and hinder their ability to serve additional markets. In sum, the Commission has clear legal authority to promulgate national standards for establishing UNEs, and sound policy – supported by three years of experience – suggests that national rules are appropriate.

Net2000 concurs in the Commission's tentative conclusion that it "should continue to identify a minimum set of network elements that must be unbundled on a nationwide basis."[6] As the Commission observes, there is nothing in the Supreme Court's decision that calls into question its decision to establish minimum national unbundling requirements.[7] The rationale supporting this conclusion remains as valid today as it was three years ago when the Commission adopted it in its *First Report and Order.*[8] There, the Commission concluded that, by identifying a specific list of network elements that must be unbundled, applicable uniformly in all states and territories, it would best further the "national policy framework" established by Congress to promote local competition.[9] Specifically, the Commission found that a national list would: (1) allow requesting carriers, including small entities, to take advantages of economies of

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6 *FNPRM* ¶ 14.

7 *Id.*

8 *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, CC Docket No. 96-98, FCC 96-325, First Report and Order, 11 FCC Rcd 15499, ¶ 241-48, 281-83. (1996) (subsequent history omitted) ("*Local Competition First Report and Order*").

9 *Local Competition First Report and Order* at ¶¶241-48.

scale; (2) provide financial markets with greater certainty in assessing competitors' business plans; (3) facilitate the states' ability to conduct arbitrations; and (4) reduce the likelihood of unnecessary litigation regarding the requirements of section 251(c)(3) that strains resources of CLECs and state commissions.[10]

Three years of experience in implementing the 1996 Act has validated the Commission's decision to adopt minimum national unbundling standards. Uniform nationwide standards are no less necessary today, as local competition is still very much in a nascent state. Indeed, the Commission recently affirmed its minimum national standards rationale in its order expanding its minimum national collocation requirements.[11] In its *Advanced Services Collocation Order*, the Commission emphasized that such action was necessary to further the pro-competitive goals of the Act and to encourage competitors' deployment of advanced services.[12] The same holds true here.

Net2000 also supports the Commission's tentative conclusion to continue to allow the state commissions to impose additional unbundling requirements, pursuant to Section 251(d)(2).[13] This approach effectively has allowed the states to function as laboratories for local competition. Indeed, the process has produced numerous "best practices," including the establishment of dark fiber transport and high capacity loops as UNEs.[14] As Net2000 discusses

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10 *Id.*

11 *Deployment of Advanced Telecommunications Capability,* CC Docket No. 98-147, First Report and Order, ¶ 23 ("*Advanced Services Collocation Order*").

12 *Id.* at ¶¶ 23-24.

13 *FNPRM* at ¶ 14.

14 *See Consolidated Petitions of New England Telephone and Telegraph d/b/a Bell Atlantic-Massachusetts et al.,* D.P.U./D.T.E. 96-73/74, 96-75, 96-80/81, 96-83, 96-94-Phase 4-J

below, such decisions are essential to the development of facilities-based local competition, and this Commission should incorporate these state "best practices" into its minimum national standards. Continuing to allow states to impose additional unbundling requirements also may afford states the flexibility to spur competition where it is slow to develop or to encourage the deployment of advanced services pursuant to their own duties under Section 706.

In light of the evidence that uniform, national standards for UNEs are critical to the development of local competition, Net2000 believes that the Commission must reject any proposal which seeks to upend such a system by empowering state commissions in the first instance to remove network elements from the list of national minimum unbundling requirements, even within their states. Such an approach runs counter to every rationale put forth by the Commission in favor of national minimum standards, as it would invite state-by-state dismantling of the national list of UNEs that now serves as the bedrock foundation of local competition. Allowing individual states to take a piecemeal approach and gerrymander the availability of UNEs would serve only to perpetuate the seemingly endless cycle of litigation that has mired the industry since the inception of the Act. Therefore, inasmuch as state commissions should have authority to add to the list of available UNEs, state commission should not have the authority to remove UNEs from any national list.

(...continued)

(Mass. D.P.U./D.T.E. Mar. 19, 1999); *Petition of Waller Creek Communications, Inc., for Arbitration with Southwestern Bell Telephone Company*, Docket No. 17922 (TX P.U.C. Dec. 29, 1997); *Petition of Electric Lightwave for Arbitration Pursuant to Sec. 252(h) of the Telecommunications Act of 1996 to Establish an Interconnection Agreement with GTE Northwest Inc.,* Docket No. UT-901029 (WA U.T.C. Mar. 13, 1992).

B. The "Necessary" and "Impair" Standards

In developing national rules for UNEs, the Commission must conduct the "necessary" and "impair" analysis, as directed by section 251(d)(2) of the Act, which provides:

> In determining what network elements should be made available for the purposes of subsection (c)(3), the Commission shall consider at a minimum, whether –
>
> (A) access to such network elements as are proprietary in nature is *necessary*; and
>
> (B) the failure to provide access to such network elements would *impair* the ability of the telecommunications carrier seeking access to provide the services that it seeks to offer.[15]

This statutory test for determining which network elements must be unbundled, incorporates two separate standards – "necessary" and "impair" – which the Commission must consider in establishing UNEs. The "necessary" standard applies to "proprietary" network elements and the "impair" standard applies non-proprietary network elements.

In the *Local Competition First Report and Order*, the Commission found that "proprietary" network elements include those "with proprietary protocols" or those "containing proprietary information."[16] The Supreme Court did not question the Commission's interpretation of the term "proprietary," and as such, Net2000 submits that the Commission should maintain its existing definition of "proprietary" for purposes of defining UNEs. By maintaining the existing definition of proprietary, Net2000 notes that the Commission will not have to review its prior determination as to whether a given ILEC network element is proprietary. Rather, the

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15 47 U.S.C. § 251(d)(2) (emphasis added).

16 *Local Competition First Report and Order* at ¶ 282.

Commission may rely on its previous determinations. Net2000 does request, however, that the Commission clarify that it will construe the definition of "proprietary" narrowly to avoid ILEC efforts to game this definition for purposes of circumventing their statutory obligations.

With the definition of "proprietary" clarified, the next step in the analysis is to develop the "necessary" and "impair" standards. Section 251(d)(2) contemplates two types of UNEs – proprietary and nonproprietary. For proprietary UNEs, the Commission must determine whether CLEC access to the UNE is "necessary," and for nonproprietary UNEs, the Commission must determine whether failure to obtain access would "impair" the ability of a CLEC to provide telecommunications services.[17] Thus, the difference between "necessary" and "impair" appears fundamentally to be one of degree, with "necessary" presenting the higher hurdle for unbundling "proprietary" elements.

This distinction recognizes that in some very narrow instances, an ILEC may not have to offer a "proprietary" telecommunications application as a UNE if a CLEC could reproduce the ILEC application relatively easily.[18] However, if failure to gain access to a "proprietary" UNE would result in a material loss of functionality to CLECs (*e.g.*, access to information needed to electronically bond OSS systems), then it would be "necessary" for the

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17 47 U.S.C. § 251(d)(2) (emphasis added).

18 For example, because it's generally available throughout many ILEC networks, advanced intelligent network ("AIN") functionality would <u>not</u> be considered a proprietary network element, and CLECs could obtain access to AIN functionality as a UNE by demonstrating that no reasonable substitute to the ILECs AIN network exists. However, if the ILEC, using AIN service information building blocks ("SIBB"), created some new adjunct-to-basic telecommunications services, then the ILEC could protect the new application as proprietary. Of course, the CLEC, with unbundled access to the same AIN SIBBs would have a fair opportunity to "reverse engineer" the AIN application created by the ILEC, rendering access to the new ILEC application would be unnecessary.

CLECs to have access to the item as a UNE. For non-proprietary network elements, the "impair" standard is invoked. Under the "impair" standard, Net2000 suggests that non-proprietary network elements must be made available to CLECs unless a ubiquitous, interchangeable substitute for the ILEC UNE is readily available at a reasonable and competitive price.

II. UNDER THE "NECESSARY" AND "IMPAIR" STANDARD, THE COMMISSION SHOULD RETAIN ALL OF THE UNES DEFINED IN RULE 319 AND CLARIFY THAT ILECs MUST MAKE THESE UNES AVAILABLE FOR BROADBAND SERVICES

In the *Local Competition First Report and Order* the Commission identified seven technology-neutral network elements that ILECs must unbundle in accordance with sections 251(d)(2) and 251(c)(3). These include: (1) the Local Loop; (2) Network Interface Device ("NID"); (3) Switching Capability; (4) Interoffice Transport; (5) Operations Support Systems ("OSS"); (6) Signaling and Call-Related Databases; and (7) Operator Services and Directory Assistance ("OS/DA"). Net2000 submits that each of these UNEs should be re-promulgated by the Commission according to the "impair" standard outlined above.[19] In addition, Net2000 requests that the Commission clarify that ILECs must make UNEs available at all technically feasible service levels. While the Commission's previous UNE rules were

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[19] *Local Competition First Report and Order* at ¶¶ 388, 393, 419, 446, 481, 490, 497, 521, 539. Net2000 notes that ILECs did raise proprietary concerns regarding access to OSS, however, the Commission never concluded that OSS are proprietary. Net2000 also notes that the Supreme Court had directed that Commission to better develop the "necessary" and "impair" standards. *See* AT&T at 736. (finding that section 251(d)(2) "requires the Commission to determine on a rational basis which network element must be made available, taking into account the objectives of the Act and giving some substance to the 'necessary' and 'impair' standards."). Doing so in no way requires the Commission to revisit whether a certain network element is "proprietary."

technology neutral, ILECs have taken the position that they need only provide circuit-switched and low speed (*i.e.*, ISDN-BRI and below) UNEs to competitors. By clarifying the ILECs must provide high-capacity UNEs, the Commission will go a long way toward encouraging the employment of advanced, broadband services.

A. Local Loops

Net2000 agrees with the Commission's "strong expectation" that under any reasonable interpretation of the "necessary" and "impair" standards of Section 251(d), the Local Loop will be subject to the unbundling obligations of Section 251(c)(3).[20] Access to the Local Loop is a fundamental cornerstone of the ability of new entrants to compete with incumbents. Indeed, Congress expressly recognized the importance of access to the local loop as a means of fostering competition by including "unbundled loops separate from switching" in the section 271 competitive checklist.[21] By any reasonable conception, the local loop must be included in the list of network elements subject to Section 251(d)(2).

The Commission defines the Local Loop as "a transmission facility between a distribution frame (or its equivalent) in an incumbent LEC central office and an end user customer premises."[22] Net2000 believes that this is an appropriate, technology-neutral definition of the Local Loop; however, Net2000 respectfully requests that the Commission clarify that the Local Loop also includes:

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20 *FNPRM* at ¶ 32.

21 47 U.S.C. § 271(c)(2)(B)(iv); *see also Local Competition First Report and Order* at ¶ 377.

22 47 C.F.R. 51.319(a).

1. High-capacity loops – copper or optical facilities at the DS1, DS3, and OCn levels,

2. "Clean Copper" loops – copper transmission facilities to an end-user's premises conditioned to provide digital services (including DSL) without electronics,

3. Dark fiber loops – optical transmission facilities to an end-user's premises without electronics, and

4. Any cross-connect to other UNEs.

In the *Local Competition First Report and Order*, the Commission found that Local Loops are not proprietary,[23] and therefore an "impair" analysis is appropriate. No reasonable substitute for ILEC Local Loops (including high-capacity, clean copper, and dark fiber loops) exists, and ILECs are the only providers with ubiquitous Local Loops in their service territories. As for cross-connects, no ILEC substitute exists, and without a cross-connect, *i.e.*, the ability to connect with other UNEs or LEC equipment, Local Loops completely lack functionality. Thus, the Local Loop meets the "impair" standard described herein, and thus should be defined as a UNE on the Commission's national list.

B. NID

The Commission should reaffirm the availability of the NID pursuant to the "impair" standard of section 251(d). In the *Local Competition First Report and Order*, the Commission found that "the record contains no evidence of proprietary concerns with unbundled access to the NID," and Net2000 submits that no reason exists to review this finding.[24] The

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23 *Local Competition First Report and Order* at ¶ 389.

24 *Id.* at ¶ 393.

Commission defines the NID as "as a cross-connect device used to connect loop facilities to inside wiring,"[25] and Net2000 supports this definition.

Regarding the "impair" analysis, Net2000 notes that access to the NID is nearly as critical as access to the Local Loop. Because NIDs are dedicated to specific customers, alternatives are not available on a wholesale basis, and self-provisioning is impractical with any type of ubiquity. In addition, a customer's NID is often the means through which inside wire facilities are accessed, and without access to the ILEC NID, a competitor could lack access to a customer. Accordingly, under the "impair" standard presented herein, the Commission should retain the NID as a distinct UNE.

C. Switching Capability

The Commission should reaffirm its switching capability UNE according to the "impair" standards of section 251(d). Net2000 supports the definition of "Switching Capability" contained in Rule 51.319(c) and suggests only that the Commission expand the definition to include packet switching. In its *Section 706 Order*, the Commission found that the procompetitive provisions of the Act – including section 251(c)(3)'s unbundling requirements, apply with equal force to ILEC circuit-switched and packet-switched networks.[26]

The provision of switching – local exchange, tandem, or packet – on an unbundled basis satisfies the "impair" standard of section 251(d)(2)(B) as defined by Net2000.

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25 47 C.F.R. § 51.319(b)(2).

26 *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket No. 98-147, FCC 98-188, Memorandum Opinion and Order and Notice of Proposed Rulemaking at ¶ 11 (1998) ("*706 Order*").

Without access to ILEC switching, CLECs would have absolutely no hopes of offering ubiquitous competitive services. At present, absolutely no market exists for wholesale switching capacity, and thus no alternative UNE exists outside of the ILEC network. While many CLECs operate switches, they are busy developing their retail capacities, and much of this job involves developing the back office systems needed to interface with the ILECs. Facilities-based CLECs simply have not had the resources to develop the infrastructure necessary to support wholesale products to date. With regard to self-provisioning, the number of switches needed to provide a ubiquitous service offering would be extremely difficult, both in terms of absolute cost and time-to-market. Because no competing alternative to a local switching UNE exists, and because of the cost and time-to-market issues associated with providing ubiquitous service over self-provisioned switches, Net2000 submits that the Switching Capacity UNE meets any reasonable "impair" standard.

D. Interoffice Transport

Net2000 believes that the Commission should reaffirm and actually expand its definition of interoffice transport under the "impair" standard. Interoffice Transport by no means qualifies as "proprietary." Access to interoffice transmission facilities is critical to new entrants seeking to enter local markets, and Congress recognized this by including "local transport" in the section 271 competitive checklist. As the Commission has indicated, "[a]n efficient new entrant might not be able to compete if it were required to build interoffice facilities where it would be more efficient to use the incumbent LEC's facilities."[27] Indeed, Net2000 has chosen its "smart

[27] *Local Competition First Report and Order* at ¶ 440.

build" strategy based on the critical business assumption that it can gain fair access to ILEC interoffice transmission facilities. Although some alternative interoffice transport providers are beginning to offer CLECs a choice for service, diversity in the interoffice transport market is not widespread. In the future, the Commission may want to consider within the definition of interoffice transport whether competition exists at the end-office level, but present ILEC interoffice facilities are crucial for all new entrants.

In re-promulgating the Interoffice Transport UNE, Net2000 recommends that the Commission clarify that Dark Fiber transport is included in the definition of Interoffice Transport. While the Commission previously found that it lacked an adequate record upon which to identify Dark Fiber transport as a UNE,[28] Net2000 notes that numerous states have defined Dark Fiber as a UNE, suggesting the Dark Fiber meets any reasonable "impair" analysis. Thus Net2000 recommends that the Commission adopt Dark Fiber as a national UNE.

E. Signaling and Call-Related Databases

In the *Local Competition Order*, the Commission recognized that access to signaling links, signaling transfer points, and call-related databases (such as the LIDB, Toll Free Calling, and AIN databases, as well as the Service Management Systems necessary to use these call-related databases effectively), is critical to entry into the local markets and to the ability of new entrants to compete with incumbents on a comparable basis.[29] Indeed, the importance of signaling systems and related databases is reflected in section 271, which requires BOCs to make

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28 *Id.* at 450.

29 *Local Competition First Report and Order* at ¶¶ 478-79.

these available on a nondiscriminatory basis as a precondition to entry into the in-region interLATA services market.

The Commission already has found that Signaling and Call-Related databases are not "proprietary" because "SS7 signaling networks adhere to Bellcore standards, rather than LEC-specific protocols...."[30] Moreover, "[b]ecause alternative signaling methods, such as in-band signaling, would provide a low quality of service, [the Commission concluded] that a competitor's ability to provide service would be significantly impaired if it did not have access to incumbent LEC's unbundled signaling links and STPs."[31] Because of service quality issues with substitute service providers, ILECs must continue to provide SS7 as a UNE, according to the "impair" standard presented herein.

F. OSS

Net2000 additionally supports the Commission's existing definition of OSS. In the *Local Competition First Report and Order*, the Commission noted that ILECs "argue that there are proprietary interfaces used to access [OSS] databases and information;" however, the Commission did not make a finding as to whether OSS qualify as proprietary network elements.[32]

Even if the Commission were to determine that OSS is proprietary, Net2000 firmly believes that it would meet the "necessary" standard included herein. Indeed, the

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30 *Id.*

31 *Id.*

32 *Id.* at ¶ 521.

Commission has noted that "it is absolutely necessary for competitive carriers to have access to [OSS] functions in order to successfully enter the local market."[33] This is so because, if CLECs do not have access to the ILECs' OSS functions "in substantially the same time and manner that an incumbent can for itself, competing carriers [would] be severely disadvantaged, if not precluded altogether, from fairly competing."[34] Thus, even if OSS were considered proprietary, it would satisfy the "necessary" test presented herein for UNEs.

G. Operator Services/Directory Assistance

Finally, Net2000 supports the Commission's existing definition of operator services/directory assistance ("OS/DA"), and Net2000 submits that, pursuant to the "impair" standard, the Commission should reinstate OS/DA as a UNE. In the *Local Competition First Report and Order*, the Commission noted that commenters did not identify proprietary concerns with unbundling access to operate call completion services or directory assistance.[35] This continues to be true, and thus the "impair" standard should be used in evaluating OS/DA's viability as a UNE.

In the *Local Competition First Report and Order*, the Commission found that unbundled access to the facilities and functionalities used by incumbents to provide OS/DA is necessary to facilitate competition in the local exchange market.[36] The Commission further found that such unbundled access is consistent with the intent of Congress, which included the

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33 *Id.*

34 *Local Competition First Report and Order* at ¶ 522.

35 *See Local Competition First Report and Order* at ¶ 539.

36 *Id.* at ¶ 534.

provision of OS/DA in the section 271 competitive checklist.[37] Customers expect to have access to these services from their telecommunications services providers, whether incumbent or new entrant. It follows that competitors must have access to the ILECs' OS/DA on an unbundled basis in order to be in a position to serve the incumbent's customers on an equal and competitive basis. As is the case with interoffice transport, alternative providers of OS/DA have not emerged to the point where CLECs can rely upon competition to provide fair access to the services needed.

Consistent with the "necessary" and "impair" standards suggested by Net2000, the Commission should re-establish each of the UNEs contained in its original list of elements for the reasons described in this section.

III. THE COMMISSION MUST CLARIFY THAT COMBINATIONS OF UNES ARE MANDATED BY THE NECESSARY & IMPAIR STANDARDS

As the Commission has recognized, "[t]he ability of requesting carriers to use unbundled network elements, including combinations of unbundled network elements, is integral to achieving Congress's objective of promoting rapid competition in the local telecommunications market."[38] Indeed, the language of section 251(c)(3) mandates that requesting carriers have access to combinations. The Commission is thus fully empowered to require ILECs to provide UNE combinations that CLECs need to avoid the significant expense associated with collocation yet still retain the ability to provide ubiquitous service offerings.

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37 47 U.S.C. § 271(c)(2)(B)(vii)(II)-(III).

38 *FNPRM* at ¶ 2.

Net2000 submits that Commission should require loop, multiplexer, transport combinations (knows as "EELs") and the complete UNE platform, as described below.

A. The Commission Has Authority to Require Combinations of UNEs

In discussing whether the Commission has authority to require ILECs to provide UNEs in combined form, the Supreme Court expressly found that "unbundling" does not require physical separation, but only separate prices for equipment and supporting services.[39] Based on this conclusion, the Court found that the Commission's "all element" combination rule is "entirely rational, finding its basis in [section] 251(c)(3)'s nondiscrimination requirement."[40] Thus, to avoid ILEC discrimination in favor of their retail customers, the Commission may – and should – require ILECs to provide UNEs in combination.

In exercising its authority to require combinations, Net2000 submits that the Commission should reaffirm its previous findings that collocation alone is not a sufficient means of allowing competitors to access and combine UNEs.[41] As the Commission noted:

> Nothing in the language of section 251(c)(3) limits a competing carrier's right of access to unbundled network elements to the use of collocation

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39 *AT&T* at 737 (affirming rule 319).

40 *Id.*

41 *See Application by BellSouth Corp. et al. Pursuant to Section 271 of the Communications Act of 1934, as amended, To Provide In-Region, InterLATA Services in Louisiana*, Memorandum Opinion and Order, FCC 98-17 at ¶¶ 164-170. (rel. Feb. 4 1998); *see also* N.Y.P.S.C. Opinion No. 98-18, *Opinion And Order Concerning Methods For Network Element Recombination* (Nov. 23, 1998) (The "record indicated that BellAtlantic-New York's collocation-based options alone, absent provision of the platform (or another electronic or otherwise seamless and ubiquitous method), were insufficient to support combination of elements to serve residential and business customers on any scale that could be considered mass market entry.").

> arrangements. If Congress had intended to make collocation the exclusive means of access to unbundled network elements, it would have said so explicitly. Instead, Congress adopted an additional standard under section 251(c)(3) that imposes different and distinct duties on incumbent LECs.[42]

While the Commission made this statement in the context of a section 271 application, sections 251(c)(3) and 251(c)(6) obligations apply equally to BOC and non-BOC incumbent LECs. As such, neither ILECs nor BOCs may offer collocation – or collocation variants – as the sole means of gaining access to and combining UNEs. This proposition is consistent with the Act and Supreme Court's decision. Thus, for sake of clarity, Net2000 requests that the Commission reaffirm its previous determinations that ILECs be required to provide UNEs in combination to requesting carriers.

B. The Commission Should Endorse Loop, Transport, and Multiplexer Combinations to Obviate the Need to Collocate in Every End Office

As noted above, the Commission has the authority to require ILECs to provide UNEs in combination. The Commission has found that ILECs may not offer collocation as the only means of recombining network elements, as doing so would result in discrimination against CLECs. To avoid such unlawful discrimination, Net2000 submits that the Commission should require ILECs to provide EEL combinations to requesting CLECs.

In spite of Commission rulings to the contrary, ILECs typically still offer collocation as the only means by which CLECs can access and combine UNEs. This results in discrimination against CLECs, as ILECs provide many services via arrangements indistinguishable from the EEL. For example, in providing DSL services to ISPs and other end-user customers, ILECs provision a continuous transmission facility that runs from the ISP point

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42 *Id.*

of presence ("POP") to the ISP's retail customer. Such a facility often traverses multiple central offices and integrates loop and multiplexing functionalities. In order to provide a competing service, a CLEC would be required to collocate equipment in each of these central offices. This would greatly increase the costs – in terms of time and financial resources – that competitors must incur in rolling out advanced services, thereby rendering those services unattractive to potential customers. Net2000 made the decision not to rely heavily on collocation due to the delays and costs associated with rolling out its services. The significant operational difficulties that Net2000 has faced in dealing with Bell Atlantic as a reseller also contributed to the decision to rely on other methods of reaching customers. For example, in the Washington, D.C. market, Net2000 orders special access circuits instead of utilizing collocation. However, the only way for Net2000 to reach end-users is to purchase these special access circuits as loops at retail prices (rather than the cost-based prices contemplated by the Act). This raises Net2000's costs and ability to reach end-users. Without the EEL, Net2000 and other CLECs that do not rely upon collocation are effectively discriminated against. Moreover, as loop rates are deaveraged, the disparity in price between special access and cost based loop rates will only grow.

An EEL combination would give CLECs access to the same local loop functionality that an ILEC has. Rather than forcing a CLEC to adopt the outdated distributed central office architecture of the ILEC, an EEL in effect would bring an end user's loop to the CLEC's local switch or point of collocation. Along the path to the CLEC's point of interface, EELs would be aggregated utilizing modern multiplexing technology. Once delivered to the CLEC, EELs are dependent upon the CLEC providing its own switching functionality. In this manner, an EEL is nothing more – and should be treated in this process as – an end-user "loop" connected to a CLEC switch.

Requiring a CLEC to collocate in multiple central offices that it wishes to serve ties a CLEC to the ILECs' existing embedded infrastructure, significantly raises CLEC costs of providing services relative to ILEC costs, and severely slows CLEC deployment of competing services. As such, CLECs are "impaired" by their present inability to purchase a continuous facility from the CLEC's switch or collocated equipment in a central office to an ultimate subscriber served by a different central office. To alleviate this impairment, the Commission should require that ILECs make available EEL combinations.

Net2000 submits that CLECs need combinations, like the EEL, to maximize the number of customers that may be reached with a single collocation arrangement. Wide availability of an EEL network element will allow CLECs to deploy networks based on the advanced technology of today, rather than constrain CLECs to the ILECs' network design. When ILECs designed their networks, the technology available required many switches distributed widely throughout a region. Today, by contrast, modern digital switches can serve a much wider area than the older analog switches, which ILECs originally deployed in their networks. Requiring collocation in every end office limits a CLECs ability to install a modern network.

Availability of an EEL combination also would minimize demand for collocation space. As competition develops, the demand for collocation space likely will increase, and as the Commission is well aware, reconditioning space for collocation is very time consuming and expensive, as is building out new collocation space. Even with the substantial benefits of the Commission's new collocation rules, requiring collocation for combining two lengths of a single transmission facility from a CLEC's point of interface to the customer premises would consume large amounts of collocation space with little if any corresponding benefit to ILECs, CLECs, or

consumers. It follows that an EEL combination would also promote competition by maximizing the use of scarce collocation space.

ILECs employ solutions extremely comparable to EELs in their own networks. For example, where a customer's serving central office is not equipped with a packet switch, ILECs will enable customer access to packet switched user-to-network interfaces in remote central offices, using a loop/transport facility. From a technical perspective, an EEL is essentially the same type of arrangement. Typically in an EEL configuration, the end user's local loop would be connected to an aggregation device at the ILEC's central office (*i.e.*, multiplexer) which in turn is connected to an interoffice dedicated transport facility which terminates in a CLEC collocation in a distant ILEC central office. In provisioning an EEL, the ILEC would provide the loop, multiplexing, interoffice facility and any associated cross connects. At least initially, EELs would likely be delivered to the CLEC at one centralized physical collocation in an exchange area, bringing facilities-based competition to a far greater segment of the population faster than if collocation were required in every serving central office.

C. The Commission Should Endorse the UNE Platform to Encourage Ubiquitous Service Offerings

The Supreme Court has affirmed the Commission's determination that the Act contains no requirement of facilities ownership.[43] Nonetheless, ILECs have clung to the notion that they are not required to provide combinations of UNEs. In order to prevent ILECs from defeating entrants' legal entitlement to pre-existing UNE combinations under Rule 315(b), the

[43] *See AT&T at 736*; *see also Local Competition First Report and Order* at ¶328-340.

Commission should clarify that Rule 315(b) clearly entitles a requesting entity to provide any service to any customer through a UNE combination if the ILEC provides or uses that combination anywhere in its local network. The ILECs have tried to hamstring competition since the Act was made law. The Commission should unequivocally state that it will not allow ILECs to evade their statutory and regulatory obligations by arguing that there are no pre-existing UNE combinations for customers who are new to the area, or that the obligation does not apply to subscribers moving from one CLEC to another CLEC. The Commission should clarify that an ILEC that has previously supplied or used a UNE combination anywhere in its network for any service or customer is required to provide that same combination upon request to new entrants for any service they wish to provide to any customer they wish to serve.

Similarly, the Commission must clarify that ILECs may not saddle UNE combinations with non-cost-based "glue" charges,[44] as several ILECs have attempted to do. Glue charges would effectively prevent entrants from providing competing local services to residential and other low-volume subscribers. The Commission should make certain that ILECs do not engage in the wasteful and unnecessary practice of physically separating and reassembling UNEs before providing them to an entrant as a UNE combination. Further, ILECs should not be permitted to impose additional charges on UNE combinations above and beyond the aggregate UNE rates, except as necessary to recover the forward-looking efficiently incurred economic costs of performing necessary functions in making combinations available.

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[44] Glue charges are assessed by ILECs, purportedly to recover the cost of separating and reassembling network functionalities.

The Commission should also clarify that, in cases where a new entrant requests part of a pre-existing combination and it is technically feasible for the ILEC to comply with the request, Rule 315(b) requires the ILEC to provide the partial combination. For example, all ILECs today use or provide within their own network, the UNE platform ("UNEP"), which consists of the local loop, switching and transport as a pre-existing combination of network functionalities. Competitors should be afforded not only the entire UNE platform from the ILECs at cost-based rates, but also partial combinations at TELRIC rates. The Commission wrote Section 315(b) to prohibit the ILECs from providing partial pre-existing UNE combinations except upon request. When such a request is made, the Commission should make clear that ILECs are required to comply fully to maximize the ability of new entrants to use UNE combinations to provide competing local services.

The essential role played by UNE combinations, including the UNEP, in enabling entrants to provide services to all Americans in all regions of the country underscores the importance of ensuring that any substitute functionalities from non-ILEC sources are fully interchangeable with the same functionalities provided by the ILECs. When a new entrant provides local services through the UNEP, the entrant is dependent upon the ILEC for the *combination,* not merely for each UNE *individually*. Hence, even if the entrant can obtain one functionality from an alternative supplier, the entrant's dependence upon the ILEC for the entire UNE combination is not reduced, unless the entrant can substitute the non-ILEC functionality seamlessly and interchangeably with the remaining two ILEC-supplied UNEs for the provision of services to subscribers. Without seamless interchangeability, the entrant is still fully dependent on the ILEC for the entire multiple-UNE combination, and none of the combined

UNEs can be removed from the mandatory list, even if one of the piece part UNEs is ultimately removed from the national list.

IV. THE COMMISSION SHOULD REAFFIRM THAT ALL ITEMS CONTAINED IN THE SECTION 271 COMPETITIVE CHECKLIST MUST BE PRICED AT THE COMMISSION'S COST-BASED TELRIC STANDARD

In its section 271 decisions interpreting ILEC obligations under the Competitive Checklist, the Commission has concluded that a BOC must demonstrate that it "is providing" each Checklist item in order to obtain in-region interLATA relief.[45] As part of the "is providing" standard, the Commission has held that BOCs must offer items described in the Competitive Checklist – in addition to any UNEs established by the Commission – at TELRIC rates. As the Commission found in its *Ameritech Michigan Order*:

> We conclude that Congress must have intended the Commission, in addressing section 271 applications, to construe the statute and apply a uniform approach to the phrase "based on cost" when assessing BOC compliance with the competitive checklist.
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> * * *
>
> Our ultimate objective, for the purpose of section 271 compliance, is to determine whether the BOC's prices for checklist items in fact meet the relevant statutory requirements. We note, moreover, that even if it were decided that we lacked authority to review prices as an aspect of our assessment of checklist compliance under section 271(d)(3)(A). We would certainly consider such prices to be a relevant concern in our public interest analysis under section 271(d)(3)(C).[46]

In short, Commission precedent indicates that BOCs are required to provide all Competitive Checklist items to competitors at rates "based on cost" in order to qualify for section 271 relief.

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45 *See Application of Ameritech Michigan Pursuant to Section 271 of the Communications Act of 1934, as amended, To Provide In-Region, InterLATA Services In Michigan*, Memorandum Opinion and Order, 12 FCC Rcd 20543 (1997).

46 *Id* at ¶ 288.

In defining the "based on cost" pricing standard, the FCC has adopted the TELRIC cost model.[47] It follows, then, that the TELRIC should be used in other instances where rates based on cost are required. As the Commission has found that Congress intended a "uniform approach" to costing methodology, the Commission should reaffirm that BOCs must provide all checklist items at TELRIC in order to comply with section 271.

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47 *See, e.g., Local Competition First Report and Order* at ¶ 699.

CONCLUSION

For the foregoing reasons, Net2000 respectfully submit that the Commission adopt a nationwide list of minimum UNEs consistent with these comments. In addition, the Commission should also promulgate UNE rules consistent with the positions advocated herein.

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CERTIFICATE OF SERVICE

I hereby certify that I have, this 1st day of June, 1999, served this day a copy of the foregoing ERRATUM TO COMMENTS OF NET2000 COMMUNICATIONS, INC. by hand delivery to the following:

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