



Oregon

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May 25, 1999

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RE: CC Docket 96-98, Second Further Notice of Proposed Rulemaking

Thank you for the opportunity to assist in the review of FCC rules related to unbundling of network elements. The Oregon Public Utility Commission (OPUC) years ago recognized the importance of unbundling network elements to the advancement of competition. In our Order 90-920, issued in 1990, we determined that telecommunications services should be unbundled into network building blocks. Later orders specified the level and extent of unbundling, adopted pricing principles, and set prices for building blocks (alternatively known as network elements). In Order 96-188, we adopted a level of unbundling that we believe is consistent with the Telecommunications Act of 1996, and established rates for the building blocks adopted. A copy of this order is included with our comments.

Many other states have engaged in, or are engaging in, similar efforts. To maintain the momentum toward competitive markets in states that have already taken action with regard to unbundling network elements, it is important that any FCC rules in the area provide flexibility and authority for states to respond to local market and network conditions when the need for decisions about unbundling arises. The FCC should make a special effort to see that the work states have accomplished already is not undone by changes in its rules. We thus agree with the adoption of rule 317, allowing states to adopt additional unbundled elements, and support the suggestion that states be delegated the authority to remove them when appropriate. In response to the question about delegation of authority to the states set forth in Paragraph 38 of the Second Further Notice of Proposed Rulemaking (SFNPRM), the U. S. Supreme Court determined that the FCC has the authority to adopt rules to implement to local competition provisions of the Telecommunications Act of 1996 under 47 U.S.C. section 201(b). We believe that this authority, which allowed the FCC to delegate to states the authority to adopt additional unbundled elements, also allows the FCC to delegate to states the authority to remove unbundled elements.

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Also with respect to unbundled network elements and the question posed in Paragraph 32 of the SFNPRM, we agree that the local loop should be an unbundled element. We required extensive unbundling to achieve the goals of facilitating local competition, uniform pricing, nondiscriminatory access to monopoly building block components, and economic efficiency. A complete list of unbundled elements that we selected as a result of our extensive proceedings can be found in Appendix C of our Order 96-188. We have also determined, in our Docket UM 773, that dark fiber should be an unbundled network element.

In Paragraph 21 of the SFNPRM, comments on the applicability of the essential facilities doctrine were requested. OPUC has determined that the essential facilities doctrine does not apply in the case of section 251 of the Telecommunications Act of 1996 (Act) (Order 96-188, page 15). The essential facilities doctrine is not mentioned in the Act. The essential facilities doctrine generally applies to businesses in unregulated markets. While deregulation of telecommunications markets is a goal of the Act, the Act itself imposes a regulatory scheme to govern wholesale markets. If Congress had meant to apply the essential facilities doctrine to the wholesale telecommunications market, it would have included a provision in the Act adopting that doctrine in the law. The amount of unbundling that would be required under the essential facilities doctrine would be insufficient to achieve the public policy goals of the Act, so Congress rightly did not include in it such a restriction on unbundling.

In Paragraph 12 of the SFNPRM, the FCC has requested information about how to handle the burden of proof when deciding whether a network element should be unbundled. In our Order 96-188, we found that the burden of proving nonessentiality should not fall on either the OPUC or on competitive providers. The following excerpts from that order describe our reasoning:

“Based on the evidence and arguments presented, the Commission finds that the public interest requires USWC and GTE to unbundle their telecommunications services at the level recommended by Staff. We also find that USWC and GTE should provide the additional building blocks discussed on pages 45-46 of this order.

“As we emphasized in Order No. 90-920, unbundling is a necessary part of a regulatory structure designed to respond to an increasingly competitive telecommunications environment. Unbundling at the level recommended by Staff will stimulate the development of effective competition and result in customer benefits that include lower prices, greater choice, better service quality and accelerated innovation. It will also promote other important public policy objectives, including cost-based pricing, non-discriminatory availability of building blocks, correct price signals and efficient use of telecommunications facilities.” [Page 38.]

“(g) USWC argues that wireless service is a viable alternative to landline local exchange service. The LECs also note that loop facilities may soon be available from other providers such as cable television and electric utilities. Although the Commission expects that alternative loop facilities may someday compete with LEC NACs [Network Access Channels], there is an inadequate basis in this record to conclude that these options are currently a cost effective solution for a significant percentage of customers or that such loops are available in numbers sufficient to permit meaningful competition.” [Pages 44-45.]

“2. An essential function is a functional component necessary to the provision of a service by a telecommunications provider for which there is no adequate alternative in terms of quantity, quality and price to the incumbent telecommunications utility.” [Page 47.]

“6. All building blocks, whether offered separately or as part of a bundled service, should be classified as essential functions until such time as the incumbent telecommunications utility demonstrates that there are adequate alternatives in the relevant marketplace comparable in quantity, quality and price.” [Page 48.]

“(a) USWC, GTE and United do not agree that all building blocks should be classified as essential functions until a LEC demonstrates that adequate alternatives exist in the relevant marketplace.

The LECs assert that there is ample evidence in the record for the Commission to conclude that many of the building blocks are generally available from other suppliers. For example, USWC observes that many competitors have their own switches and loop facilities, and that competitive local exchange providers are operating in other jurisdictions without unbundling functions such as interim number portability.” [Page 49.]

“[W]e disagree with USWC’s claim that there is sufficient evidence in the record to conclude that adequate alternatives exist for many LEC services. Although USWC and the other LECs have offered a number of observations and conclusions regarding the state of competition, there are no facts in the record upon which to conclude that the competitive alternatives they mention are comparable in terms of quantity, quality and price. If the LECs wish to present facts in support of their claims, the Commission will review them and make the necessary determination. In the meantime, however, we decline to accept such representations merely on faith.” [Page 53.]

“Assigning the burden of proof to competitors is illogical because it requires them to prove a negative, *i.e.*, that adequate alternatives do not exist in the marketplace.” [Pages 53-54.]

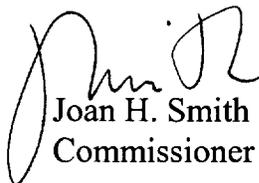
In our Order No. 96-188, we examined and considered the availability and adequacy of network elements outside the ILECs’ networks in determining the network building blocks that ILECs must offer to telecommunications carriers. Thus, PUC Order No. 96-188 complies with section 252(d)(2) of the Act. We carefully considered each element included on our list and would like to be able to retain this list for use in Oregon under the FCC’s revised rules.

The FCC should not adopt a sunset provision based on the passage of time to determine when unbundling is no longer necessary, as suggested in Paragraph 39 of the SFNPRM. Such a provision would, in our view, constitute an arbitrary abdication of the FCC’s responsibilities under the Act.

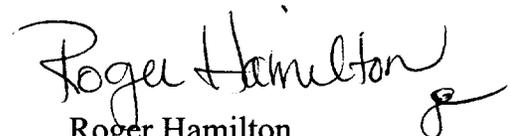
Again, thank you for this opportunity to provide input into an important decision that will affect the rapidity and extent of competition in local telecommunications markets.



Ron Eachus
Chairman



Joan H. Smith
Commissioner



Roger Hamilton
Commissioner

ORDER NO. 96-188

ENTERED **JUL 19 1996**

BEFORE THE PUBLIC UTILITY COMMISSION

OF OREGON

UM 351

In the Matter of the Investigation into the)
Cost of Providing Telecommunications.)
Services.)

ORDER

UM 351

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Executive Summary

In this order, the Public Utility Commission of Oregon unbundles the telecommunications services offered by U S WEST Communications, Inc. (USWC), and GTE Northwest Incorporated (GTE) into network building blocks that will be offered by tariff. We also adopt a set of prices for these building blocks. In addition, we resolve a number of outstanding issues relating to jurisdiction, imputation, network access channel deaveraging, pricing, use and user restrictions, resale, wholesale rates, and revenue requirement calculation.

Background. In 1990, the Oregon Public Utility Commission issued Order No. 90-920, opening an investigation into the cost structure of telecommunications companies. In that order, the Commission held that telecommunications services should be unbundled into network building blocks to respond to emerging competition in telecommunications markets. Phase I of this docket produced a methodology for calculating the incremental cost of telecommunications services. In July, 1993, that process culminated in the release of the Telecommunications Cost Report and building block cost data. The goal of Phase II is to implement the principles adopted in Order No. 90-920, specify the level and extent of unbundling consistent with the Commission's Open Network Architecture (ONA) rules, and determine the price changes required to foster competition and advance other important public policy goals.

Telecommunications Act of 1996. On February 8, 1996, the President signed the Telecommunications Act of 1996, which affects many of the issues addressed in Phase II of this proceeding. Among other things, the Act mandates the unbundling and resale of telecommunications services. Federal regulations implementing the Act are to be promulgated in August, 1996.

Commission Authority; Essential Facilities Doctrine. USWC, GTE, and United Telephone of the Northwest (United) (jointly the LECs) allege that the Commission lacks authority to order unbundling of telecommunications services except under the competitive zone law of ORS 759.050. As a consequence, they argue that the Commission may unbundle only essential functions within authorized competitive zones. The LECs also argue that the essential facilities doctrine of antitrust law should govern unbundling. We reject both of these arguments.

Unbundling. We adopt the unbundling proposal recommended by the Commission Staff. The Staff proposal is consistent with the level of unbundling contemplated by our ONA rules and the Telecommunications Act of 1996. The unbundling proposed by the LECs, on the other hand, does not fully comply with the Act or the requirements in our ONA rules. Although the LECs propose to make several building blocks available, a number of critical network functions are not included or offered only on a bundled basis. In addition to adopting the building blocks recommended

by Staff, we adopt six additional building blocks proposed by various parties during the course of the proceedings. See Appendix C to this order.

Imputation. Imputation establishes a price floor on LEC services that include one or more network functions that other telecommunications service providers must use. Imputation requires a LEC to charge itself the same price that other providers must pay to purchase those essential functions from a LEC. In addition, the incumbent LEC must impute the cost of all nonessential functions necessary to provide the service. Imputation thus prevents a LEC from manipulating the price of LEC-supplied functions where adequate alternatives do not exist in the marketplace. In this order, the Commission reaffirms the imputation policy articulated in Order Nos. 94-1851 and 95-313 issued in this docket.

NAC Deaveraging. Currently, local exchange customers pay statewide average rates. Customers who are costly to serve--those who live in areas with low population density or who require longer network access channels (NACs or loops)--pay the same rates as other customers in their class who are less costly to serve. For prices to better reflect underlying costs, NAC prices may need to be deaveraged. Comprehensive deaveraging of NAC prices would cause significant rate shock for residential customers, however, unless mitigated or offset by contributions from the universal service fund. At this point, the Commission retains statewide average rates for local exchange service across all density and distance categories.

Pricing. The Commission's pricing policy is set forth in Order Nos. 90-920, 94-1851, and 95-313. We reaffirm those policies. In addition, we establish rates for the building blocks authorized in this proceeding. The building block rates are set forth in Appendix C. With limited exceptions, the building block rates include a contribution to joint and common costs. The building block rates apply to USWC and GTE, who must file compliance tariffs within 60 days of the date of this order. Under the federal Act, United is classified as a rural carrier, and is exempt from unbundling requirements at this time.

The tariff prices charged by the LECs for existing bundled services are not changed by this order. The Commission will examine bundled service rates for USWC in docket UT 125. GTE is required to submit an updated rate filing by January 1997. In addition, USWC and GTE have already filed tariffs for a number of building block services. Those tariffs are not changed by this order.

Several parties have recommended that the Commission authorize significant increases in residential service rates. We decline to consider such an adjustment until the revenue requirement proceedings have concluded for USWC and GTE, the updated cost study in docket UM 773 is complete, issues relating to universal service funding have been addressed in docket UM 731, and the FCC has issued rules to implement the Act. Once these matters have been resolved, the Commission will determine whether there is a need for a residential rate adjustment.

Use and User Restrictions. Use and user distinctions prevent customers who must pay higher rates from buying services under lower priced tariffs. Business customers, for example, are not permitted to purchase service under the residential tariff, even though there is little difference in the cost to provide business and residential service. In a monopoly environment, use and user restrictions allow regulatory agencies to maintain rate stability, enhance universal service goals, and pursue other public policy goals by establishing price relationships that do not necessarily reflect the cost of providing service. However, the advent of competition makes it much more difficult to maintain price differences that are not cost based. To the extent that current pricing structures impose pricing inefficiencies, customers will employ new technology or find other means to bypass the network. For this reason, we find that use and user restrictions should be gradually eliminated.

The issue of who may resell LEC services is related to use and user restrictions. As long as price differentials exist between customer classes, unrestricted resale would provide opportunities for tariff arbitrage. We adopt the position taken by the federal Act, that any telecommunications carrier may purchase building blocks. We take the language of the Act to include wireless carriers. Carriers who purchase building blocks may resell them without restriction. This position is consistent with Section 251(c)(3) of the Act, which contemplates resale of network elements combined to create telecommunications services. Carriers are also authorized to purchase and resell existing LEC bundled services. However, we impose certain limitations on residential resale.

Wholesale prices and volume discounts are another form of use and user restriction, because they are generally available only to a limited category of purchasers. The federal Act requires LECs to offer bundled services to telecommunications carriers at wholesale rates for resale. Wholesale rates are defined under the Act as retail rates less avoided costs. We take no action on wholesale prices at this time. Instead, we will wait for the federal rulemaking in August to determine what action is necessary.

Revenue Requirement. Currently, the Commission determines one intrastate revenue requirement for interexchange access services and a separate revenue requirement for all remaining services, including local exchange service. We then develop rates for local and access services that capture their respective revenue requirements. This method frequently causes rates for similar network functionalities, such as switching, to be different for local and access services.

We adopt a single revenue requirement for all LEC intrastate services. LEC total intrastate revenue requirement shall no longer be allocated into local, EAS, and access/toll components. A single revenue requirement will allow the Commission greater flexibility in setting rates for intrastate services.

ORDER NO. 96-188

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Background

In 1990, the Oregon Public Utility Commission (Commission) issued Order No. 90-920, opening an investigation into the cost structure of telecommunications companies. In that order, at 12, we found:

The transition from a monopoly environment to one which accommodates the existence of competition in some market segments creates a number of challenges from a regulatory perspective. The Commission must implement a regulatory framework that will foster universal service without jeopardizing development of new services or efficient utilization of the telecommunications network. Prices for telecommunications services must be set at a level that does not discourage consumption of advanced services or stifle modernization of the network. Telecommunications customers must have access to new and better services if Oregon is to attract industry and become a leader in technology and innovation as contemplated by legislative goals.

In addition, the pricing policy adopted by the Commission must provide local exchange companies [LECs] with the flexibility to respond to competition from other suppliers of telecommunications services. To the extent that current rate structures impose pricing inefficiencies, some customers may take advantage of new technologies to bypass the local exchange network entirely. Others may simply elect to obtain services from a competitive provider at a lower cost. The record suggests that the potential for effective competition exists in a number of markets, including toll, private line, and central office services.

The advent of competition and the opportunities for bypass imposes limits on the ability of regulatory agencies to adhere to traditional methods of pricing

telecommunications service. . . . [I]t will be increasingly difficult to maintain policies which overprice certain services to perpetuate high levels of contribution to residential exchange service The economic reality is that utilities must be able to respond to competition if they are to obtain any contribution at all. At the same time, the Commission must protect ratepayers by preventing telephone companies from cross-subsidizing competitive offerings with revenues generated from monopoly services. . . . In short, traditional methods of pricing telecommunications services do not address the problems presented by competition and, as a result, have limited usefulness in the present telecommunications environment. New approaches must be adopted to ensure that the statutory goals prescribed by the legislature are achieved.

The Commission concluded that there was a need for a new, cost-based approach to ratemaking. The cost of supplying telecommunications service was to serve as the starting point for determining appropriate rate levels. Order No. 90-920 at 14. After evaluating several different cost methodologies, we decided that incremental cost analysis should be utilized. We found:

Rates which reflect the incremental (or marginal) cost of service encourage better resource utilization by conveying accurate price signals to consumers of those services. If rates do not reflect incremental cost, consumers may be induced to make inefficient pricing decisions and waste valuable resources. . . . Incremental cost analysis is also essential to the existence of effective competition in the telecommunications industry. Economic theory holds that, in competitive markets, prices charged by competitors will gravitate toward long run marginal cost. Utilities must therefore be cognizant of marginal cost in order to determine if they are capable of competing with an alternate supplier of a given service. Moreover, as noted above, rate levels must at least equal marginal cost to ensure that cross-subsidization and anti-competitive pricing does not occur.

In Order No. 90-920, the Commission also decided to unbundle telecommunications services into network building blocks. We found that mandatory unbundling, uniform pricing, and nondiscriminatory availability of monopoly building block components of local exchange services are a necessary part of a regulatory structure designed to respond to competitive pressures. We further found that unbundling would enable us to establish a specific price for each building block and to ensure that all building blocks are available for purchase under the same terms and conditions, regardless of whether the building block is purchased separately or as part of a bundled service.

In addition, the Commission determined that the rate established for each monopoly building block should be imputed into the rates charged by a LEC for any service using that building block. We found that imputation is necessary to ensure that the LEC does not favor its own competitive offerings at the expense of monopoly ratepayers or dependent competitors who must purchase the same building block services from the utility.

Order No. 90-920 mandated a series of workshops to develop an incremental cost study and to address unbundling, uniform pricing, nondiscriminatory access, and imputation. We initiated this docket to resolve outstanding issues and implement the principles adopted in Order No. 90-920. To that task was added unbundling and pricing building blocks under the Commission's Open Network Architecture (ONA) rules, issued in June, 1993.¹

Between 1990 and 1993, a series of workshops were held to define and identify network building blocks and develop an incremental cost methodology. This effort was designated Phase I of this docket, and culminated in the release of the UM 351 Telecommunications Cost Report and building block cost data in July, 1993.

In Order No. 93-1118, issued August 10, 1993, the Commission adopted certain recommendations relating to the calculation of long run incremental cost (LRIC) for telecommunications services and network building blocks. We adopted (a) seven cost principles identified in the Telecommunications Cost Report; (b) a test for cross subsidization; and (c) categories and subcategories of building blocks to use as a framework for analyzing costs. We also adopted cost estimates developed by U S WEST Communications, Inc. (USWC) for certain network functions, and agreed to apply those cost results to other regulated local exchange utilities until those LECs develop or propose their own cost estimates using the approved cost principles.

In Order No. 94-1056, issued July 5, 1994, the Commission adopted revised cost estimates to supersede those approved in Order 93-1118, and approved new cost estimates for other network building blocks. We also directed that efforts to develop and update cost data should be continued. Order No. 94-1056 ended Phase I of this proceeding.

The purpose of Phase II is to determine the level and extent of unbundling consistent with the Commission's ONA rules, and the price changes necessary to foster competition in an unbundled environment. As a result of the workshops, in August 1994, Staff and other parties filed a "Memorandum of Understanding" (MOU) with the Commission in an effort to resolve a several outstanding issues.

At a prehearing conference held October 3, 1994, the Administrative Law Judge (ALJ) rejected the MOU and recommended an alternative procedure for resolving the disputed issues. Staff, USWC, GTE Northwest, Inc. (GTE), and United Telephone Company of the Northwest (United) (hereafter jointly "the LECs") appealed the ALJ's recommendation to the Commission.

In Order No. 94-1851, issued December 9, 1994, the Commission adopted the procedures proposed by the ALJ for Phase II. That order required the LECs to prepare

¹ See Oregon Administrative Rules, Division 860, Chapter 35.

three price matrices illustrating the rate consequences associated with the unbundling of network building blocks and implementing specified pricing policies. Staff was instructed to provide the LECs with a list of unbundled network functions, as well as the structure, parameters, and assumptions to be included in the price matrices. The purpose of the matrices was to aid the Commission in developing a pricing framework to encourage competitive entry without sacrificing universal service goals. The requirements for the price and cost matrices were set forth in a Staff memorandum issued on January 13, 1995.

In Order No. 95-313, issued March 29, 1995, the Commission granted an extension of time to file the price matrices, and responded to petitions for clarification and reconsideration filed by the LECs. The price matrices were filed by the LECs in April, May, and June of 1995.

On May 23, 1995, a prehearing conference was held to establish a hearing schedule, develop an issues list, and address other procedural and substantive matters. On June 1, 1995, the ALJs issued a conference report adopting the following issues for Phase II:

Unbundling and interconnection

- a. Lineside interconnection
- b. Feeder/distribution outside plant
- c. Signaling ports and links
- d. Trunkside interconnection and transport
- e. Tandem switching

Imputation

NAC Deaveraging

Pricing, markups, and contribution

Use and user restrictions

Revenue requirement

The ALJs also approved a Staff motion to defer issues relating to Signaling and Message Functions (Issue 2), Universal Service (Issue 6), Direct Access (Issue 9), and Numbering and Number Portability (Issue 10) to other dockets.

Public hearings in this matter were held October 16-23, 1995, in Salem, Oregon, before Samuel J. Petrillo and Ruth Crowley, Administrative Law Judges. Appendix A, attached to this order, lists the parties who appeared at the hearing. Posthearing briefs were filed by the parties on December 15, 1995, and January 11, 1996.

On February 8, 1996, the President signed the Telecommunications Act of 1996 (the Act), which affects many of the issues addressed in Phase II of this proceeding. Portions of the Act are discussed below. The parties filed an additional two rounds of comments regarding the Act on March 8, and March 22, 1996.

Related Dockets

A number of other Commission dockets bear on the issues addressed in this order:

- Docket UM 731 addresses issues relating to universal service. On October 17, 1995, the Commission entered Order No. 95-1103 adopting a universal service proposal. Phase II of that docket deals with implementation of the proposal.
- Docket UM 773 deals with revised cost studies filed by USWC on September 29, 1995, in compliance with Order No. 94-1056. A hearing in that docket has been held, and an order is expected later this year.
- Consolidated dockets CP 1, 14, and 15 dealt with the applications of Electric Lightwave, Inc. (ELI), MFS Intelenet of Oregon, Inc. (MFS), and MCImetro Access Transmission Services, Inc. (MCImetro), to provide competitive local exchange service in the territories of USWC and GTE. Order No. 96-021 granted those applications pursuant to ORS 759.050, and created 14 competitive zones in the Portland metropolitan area.

Telecommunications Act of 1996

On February 8, 1996, the federal Telecommunications Act of 1996 took effect. The Act is designed to promote competition for local and long distance telephone services, and affects a number of issues pending in this docket. It requires that the Federal Communication Commission (FCC) shall establish regulations to implement many of the requirements of the Act within six months after enactment. The FCC issued its Notice of Proposed Rulemaking on April 19, 1996, and solicited comments and replies. The resulting regulations are due to be promulgated in August, 1996. (References in the Act to "the Commission" are to the FCC.)

The Act amends existing communications laws in many ways, but does not automatically preempt all State communications laws and rules. Section 601(c)(1) of the Act provides:

No Implied Effect. This Act and the amendments made by this Act shall not be construed to modify, impair, or supersede Federal, State, or local law unless expressly so provided in such Act or amendments.

State commissions are given the responsibility and discretion to implement provisions of the Act, as long as the State policies and rules are not inconsistent with the provisions of the Act or regulations adopted by the FCC. Section 261 of the Act provides, in relevant part:

(b) Existing State Regulations. Nothing in this part shall be construed to prohibit any State commission from enforcing regulations prescribed prior to the date of

enactment of the Telecommunications Act of 1996, or from prescribing regulations after such date of enactment, in fulfilling the requirements of this part, if such regulations are not inconsistent with the provisions of this part.

(c) Additional State Requirements. Nothing in this part precludes a State from imposing requirements on a telecommunications carrier for intrastate services that are necessary to further competition in the provision of telephone exchange service or exchange access, as long as the State's requirements are not inconsistent with this part or the Commission's regulations to implement this part.

Further, Section 251(d)(3) provides:

(3) Preservation of State Access Regulations.--In prescribing and enforcing regulations to implement the requirements of this section, the Commission shall not preclude the enforcement of any regulation, order, or policy of a State commission that--

(A) establishes access and interconnection obligations of local exchange carriers;

(B) is consistent with the requirements of this section; and

(C) does not substantially prevent implementation of the requirements of this section and the purposes of this part.

The Act is strongly procompetitive. Section 253(a) provides that "[n]o State or local statute or regulation, or other State or local legal requirement, may prohibit or have the effect of prohibiting the ability of any entity to provide any interstate or intrastate telecommunications service." Section 253(d) authorizes the FCC to preempt enforcement of entry barriers.

In aid of the development of competition in local telecommunications markets, the Act imposes on all telecommunications carriers a general duty of interconnection and a duty not to install network features that do not comply with guidelines set out in Sections 255 and 256 (Section 251(a)). In Section 251(b), the Act imposes on all local exchange carriers the duty not to prohibit or impose unreasonable conditions on the resale of its telecommunications services; to provide number portability in accordance with FCC requirements; to provide dialing parity to competing providers of telephone exchange and toll service; to give all such providers nondiscriminatory access to telephone numbers and certain ancillary services; to afford competitors access to the rights of way; and to establish reciprocal compensation arrangements for transport and termination of calls.

Section 251(c) imposes the following additional duties on incumbent LECs:

(1) Duty to negotiate.--The duty to negotiate in good faith in accordance with section 252 the particular terms and conditions of agreements to fulfill the duties described in paragraphs (1) through (5) of subsection (b) and this

subsection. The requesting telecommunications carrier also has the duty to negotiate in good faith the terms and conditions of such agreements.

(2) Interconnection.--The duty to provide, for the facilities and equipment of any requesting telecommunications carrier, interconnection with the local exchange carrier's network--

(A) for the transmission and routing of telephone exchange service and exchange access;

(B) at any technically feasible point within the carrier's network;

(C) that is at least equal in quality to that provided by the local exchange carrier to itself or to any subsidiary, affiliate, or any other party to which the carrier provides interconnection; and

(D) on rates, terms, and conditions that are just, reasonable, and nondiscriminatory, in accordance with the terms and conditions of the agreement and the requirements of this section and section 252.

(3) Unbundled access.--The duty to provide, to any requesting telecommunications carrier for the provision of a telecommunications service, nondiscriminatory access to network elements on an unbundled basis at any technically feasible point on rates, terms, and conditions that are just, reasonable, and nondiscriminatory in accordance with the terms and conditions of the agreement and the requirements of this section and section 252. An incumbent local exchange carrier shall provide such unbundled network elements in a manner that allows requesting carriers to combine such elements in order to provide such telecommunications service.

(4) Resale.--The duty--

(A) to offer for resale at wholesale rates any telecommunications service that the carrier provides at retail to subscribers who are not telecommunications carriers; and

(B) not to prohibit, and not to impose unreasonable or discriminatory conditions or limitations on, the resale of such telecommunications service, except that a State commission may, consistent with regulations prescribed by the [FCC] under this section, prohibit a reseller that obtains at wholesale rates a telecommunications service that is available at retail only to a category of subscribers from offering such service to a different category of subscribers.

(5) Notice of changes.--The duty to provide reasonable public notice of changes in the information necessary for the transmission and routing of services using that local exchange carrier's facilities or networks, as well as of any other changes that would affect the interoperability of those facilities and networks.

(6) Collocation.--The duty to provide, on rates, terms, and conditions that are just, reasonable, and nondiscriminatory, for physical collocation of equipment necessary for interconnection or access to unbundled network elements at the premises of the local exchange carrier, except that the carrier may provide for virtual collocation if the local exchange carrier demonstrates to the State commission that physical collocation is not practical for technical reasons or because of space limitations.

Section 251(c)(3) requires unbundling of LEC services into network elements. Section 3(a)(45) defines "network element" as:

a facility or equipment used in the provision of a telecommunications service. Such term also includes features, functions, and capabilities that are provided by means of such facility or equipment, including subscriber numbers, databases, signaling systems, and information sufficient for billing and collection or used in the transmission, routing, or other provision of a telecommunications service.

Section 251(c)(3) provides that network elements must be made available to any requesting telecommunications carrier. Section 3(a)(49) defines telecommunications carriers very broadly:

The term 'telecommunications carrier' means any provider of telecommunications services, except that such term does not include aggregators of telecommunications services (as defined in section 226).² A telecommunications carrier shall be treated as a common carrier under this Act only to the extent that it is engaged in providing telecommunications services, except that the [FCC] shall determine whether the provision of fixed and mobile satellite service shall be treated as common carriage.

Section 252 of the Act sets out the procedures that incumbent LECs and new entrants must follow to turn the requirements of Section 251 into binding contractual obligations. The Act contemplates voluntary negotiations between the parties. If parties reach voluntary agreement, their agreement need not satisfy the provisions of Section 251 or the implementing regulations for that section (Section 252(a)(1)), provided the agreement does not discriminate against a telecommunications carrier not party to the agreement and is consistent with the public interest. Section 252(e)(2)(A).

If the parties cannot reach agreement, the State commission is authorized to resolve disputed issues by mediation or arbitration. Sections 252(a)(2); (b); (c); (d). A commission mediated or arbitrated resolution must comply with the requirements of Section 251 and the regulations promulgated under that section.

Section 252(d) sets out the standards by which a State commission is to determine whether pricing of interconnection and network elements, transport and termination of traffic, and wholesale prices for telecommunications services are just and reasonable. Section 252(d)(1) provides that the prices established for interconnection and network elements shall be just and reasonable, nondiscriminatory, based on cost (determined without reference to a rate-of-return or other rate-based proceeding), and may include a reasonable profit. Under Section 252(d)(2)(A), charges for transport and termination of traffic shall provide for mutual recovery by each carrier of costs associated with transport

² Section 226(a)(2) defines an "aggregator" as "any person that, in the course of its operations, makes telephones available to the public or to transient users of its premises, for interstate telephone calls using a provider of operator services."

and termination of calls that originate on another carrier's network. Costs are to be determined on the basis of a reasonable approximation of the additional costs of terminating such calls. Subsection (B) provides in part:

Rules of construction. This paragraph shall not be construed--

(i) to preclude arrangements that afford the mutual recovery of costs through the offsetting of reciprocal obligations, including arrangements that waive mutual recovery (such as bill-and-keep arrangements) . . .

Section 252(d)(3) of the Act provides that the wholesale prices for telecommunications services offered by incumbent LECs to other telecommunications carriers shall be determined on the basis of retail rates charged to subscribers for the telecommunications service requested, excluding the portion of the rate attributable to marketing, billing, collection and other costs that would be avoided by the LEC.

Section 254(g) of the Act limits the deaveraging of toll service rates. It provides that the FCC shall adopt rules by August 1996 which require that the rates charged by providers of interexchange telecommunications services to subscribers in rural and high cost areas shall be no higher than the rates charged by each such provider to its subscribers in urban areas.

Section 271 sets forth the conditions under which Bell Operating Companies (BOCs), such as USWC, and their affiliates may provide interLATA services within their service area. The FCC will approve BOC applications on a state-by-state basis. One of the requirements for obtaining FCC approval for in-region interLATA services is that the BOC must produce either an interconnection agreement with a facilities based carrier that has been approved under Section 252 or, under certain circumstances, a statement of generally available interconnection terms and conditions. In addition, all agreements and statements must comply with a "competitive checklist" set out at Section 271(c)(2)(B). Several requirements on the checklist reiterate the mandates of Section 251.

Section 251(f)(1) of the the Act creates an exemption from the provisions of Section 251(c) for rural telephone companies. It provides:

Exemption for certain rural telephone companies.--

(A) Exemption.--Subsection (c) of this section shall not apply to a rural telephone company until (i) such company has received a bona fide request for interconnection, services, or network elements, and (ii) the State commission determines (under subparagraph (B)) that such request is not unduly economically burdensome, is technically feasible, and is consistent with section 254 (other than subsections (b)(7) and (c)(1)(D) thereof).

(B) State termination of exemption and implementation schedule.--The party making a bona fide request of a rural telephone company for interconnection, services, or network elements shall submit a notice of its request to the State commission. The State commission shall conduct an inquiry for the purpose of determining whether to terminate the exemption under subparagraph (A). Within 120 days after the State commission receives notice of the request, the State commission shall terminate the exemption if the request is not unduly economically burdensome, is technically feasible, and is consistent with Section 254 (other than subsections (b)(7) and (c)(1)(D) thereof). Upon termination of the exemption, a State commission shall establish an implementation schedule for compliance with the request that is consistent in time and manner with Commission regulations.

United maintains that it is subject to the rural exemption in Section 251(f). The Commission takes official notice of our records, which indicate that United is correct in its assertion.³ Accordingly, we find that United is not subject to the negotiation, interconnection, unbundling, resale at wholesale rates, public notice of changes, or collocation requirements of Section 251(c) until a bona fide request is made and we determine that the request meets the standards set out in Section 251(f)(1)(A)(ii). However, we encourage United to voluntarily comply with the unbundling requirements set forth in this order. Under the statute, United would be subject to unbundling requirements upon a bona fide request and after a Commission determination of feasibility in any case.

Jurisdictional Issues

Commission Authority to Order Unbundling. The LECs allege that the Commission lacks authority to order unbundling of telecommunications services except under the competitive zone law, ORS 759.050.⁴ That statute, they argue, only permits

³ OAR 860-15-050(2) provides that a party may object to the fact noticed within 15 days of that notification. The objecting party may explain or rebut the noticed fact.

⁴ The pertinent sections of ORS 759.050 are as follows:

ORS 759.050(1)(c) provides: "Essential function" means a functional component of a competitive zone service necessary to the provision of the service by a telecommunications provider for which there is no adequate alternative in terms of quality, quantity, and price to the incumbent telecommunications utility.

ORS 759.050(5)(b) provides: The price and terms of service offered by a telecommunications utility for a competitive zone service within a competitive zone may differ from that outside of the zone. However, the price for a competitive zone service within the zone may not be lower than the total service long run incremental cost, for nonessential functions, of providing the service within the zone and the charges for essential functions used in providing the service, but the commission may establish rates for residential local exchange telecommunications service at any level necessary to achieve the commission's universal service objectives. Within the zone, the price of a competitive zone service, or any essential function used in providing the competitive zone service, may not be higher than those prices in effect when the competitive zone was established, unless authorized by the commission.

the Commission to require unbundling of essential functions within authorized competitive zones. The LECs also urge the Commission to apply the essential facilities doctrine of antitrust law to determine whether a service is essential. The LECs maintain that the essential facilities doctrine also applies under the Act.

In support of these arguments, GTE contends that the Commission must act within its "clearly defined statutory grant of authority." *Pacific Northwest Bell v. Davis*, 43 Or. App. 999, 1007 (1979). GTE acknowledges that the Commission has a broad grant of authority to review utility rate levels, but maintains that where the legislature's grant of power is narrow and specific, as in the competitive zone law, the Commission may not rely on other, more general, statutes to exceed the specific authorization. *Safeway Stores v. State Bd. Of Agriculture*, 198 Or 43 (1953).

GTE also notes that the competitive zone law was enacted after Order No. 90-920 which created this docket, and Order No. 93-852, which promulgated the Commission's Open Network Architecture (ONA) rules. GTE argues that, even if the Commission had general power to compel unbundling that predated the competitive zone law, the specific provisions of that statute control the unbundling of LEC services. Otherwise, GTE contends, the provisions of the competitive zone law would be meaningless. *1000 Friends of Oregon v. Wasco County Court*, 299 Or 344 (1985).

The Commission does not agree that our authority to order unbundling derives from the competitive zone statute or is limited to essential functions provided within competitive zones. On the contrary, we find that the authority to require the unbundling of telecommunications services into building block services is intrinsically related to our basic regulatory function. The interpretation of law advanced by the LECs is extremely narrow and would severely limit the Commission's power to regulate telecommunications services in the best interests of ratepayers and the public.

The Commission's legislative authority is set forth in a number of statutes. ORS 756.040(2) vests the Commission with "the power and jurisdiction to supervise and regulate every public utility and telecommunications utility in this state, and to do all things necessary and convenient in the exercise of such power and jurisdiction." ORS 756.062 provides that the laws administered by the Commission "shall be liberally construed with a view to the public welfare, efficient facilities, and substantial justice between customers and . . . telecommunications utilities." ORS 759.030(1) further provides that the Commission ". . . shall have authority to determine the manner and extent of regulation of telecommunications services within the State of Oregon."

More specifically, ORS 759.210 authorizes the Commission to establish:

ORS 759.050(5)(d) provides: On the motion of a telecommunications provider or on its own motion, the commission may order a telecommunications utility to disaggregate and offer essential functions of the telecommunications utility's local exchange network.

a comprehensive classification of service for each telecommunications utility and such classifications may take into account the quantity used, the time when used, the purpose for which used, the existence of price competition or service alternatives, the services being provided, the conditions of service and any other reasonable consideration. Based on such considerations, the commission may authorize classifications or schedules of rates applicable to individual customers or groups of customers. . . . Each telecommunications utility is required to conform its schedules of rates to such classification.

For purposes of construing our authority to classify services under the foregoing statute, ORS 756.010(8) provides that the term "service":

is used in its broadest and most inclusive sense and includes equipment and facilities related to provide the service or the product served.

The foregoing statutes authorize the Commission to prescribe the services provided by telecommunications utilities, as well as the rates, terms and conditions under which those services are provided. We regard our decision to unbundle telecommunications services and reclassify them on a building block basis as nothing more than a straightforward exercise of our general regulatory authority to determine the manner and type of services available to Oregon customers.

Because our authority to unbundle does not derive from the competitive zone statute, our authority to unbundle is also not limited to essential functions or to the geographic scope of the competitive zones. Our authority to unbundle is part of our broad authority to determine the services LECs offer, and the manner in which those services are provided. Limiting our authority to the competitive zones would allow the LECs to configure, bundle, and offer telecommunications services in whatever manner they want outside the competitive zones, beyond the reach of regulatory authority. That interpretation is manifestly incorrect and contrary to the interest of captive ratepayers. Likewise, we agree with Staff and non-LEC parties that finding a function to be essential is relevant only for purposes of determining the appropriate price floor for LEC telecommunications services. In other words, essentiality is relevant to imputation, not unbundling. See Issue III, Imputation.

The Commission also finds that the interpretation of ORS 759.050 suggested by the LECs effectively nullifies the provisions of ORS 759.210(1). ORS 174.010 provides that, wherever possible, statutory construction should give effect to all provisions of a statutory scheme. To give effect to ORS 759.210(1), it is necessary to find that the Commission's power to order unbundling is coextensive with our general regulatory authority.

In construing a statute, one must also consider the state of the law at the time the statute was passed. *Baker v. Federal Crop Ins. Corp.*, 241 Or 609 (1965); *see also U.S.*

Nat. Bank of Oregon, 106 Or App 693. The Commission observes that the competitive zone statute was enacted several months after we adopted ONA rules which mandate unbundling of telecommunications services into building blocks. In enacting subsequent legislation, the legislature's knowledge of earlier enactments is presumed. *State v. Waterhouse*, 209 Or 424 (1957). The failure of the legislature to expressly change a law on point is evidence of a legislative intention not to change it. *U.S. Nat. Bank of Oregon v. Heggemeier*, 106 Or App 693 (1991). The legislature's failure to expressly override the administrative provisions for unbundling when it enacted the competitive zone statute is evidence of its intention to keep those provisions intact.

A review of the legislative history underlying ORS 759.050 is also instructive. There is nothing in the legislative history to suggest that the legislature intended to override the Commission's ONA unbundling mandate or constrain that authority in any manner. Nor is there any indication that any interested person, including the LECs, ever suggested that the competitive zone statute would have such an effect.⁵ In fact, the Minutes of the House Committee on Commerce⁶ disclose that the unbundling provision in ORS 759.050(5)(d) was included at the request of MCI, apparently to expedite the unbundling process within competitive zones. It is extremely unlikely that MCI would have proposed a limitation on the Commission's unbundling authority, since MCI was the original proponent of unbundling in Oregon. Indeed, it was upon the recommendation of MCI witness Dr. Nina Cornell in docket UT 85 that the Commission initiated this proceeding and implemented the building block approach to unbundling incorporated in our ONA rules. See Order No. 90-920 at 6-9; 19-20.

The limited scope of the competitive zone statute also suggests that the legislature did not intend to circumscribe Commission authority to require unbundling of telecommunications services. Whereas ORS 759.050 was enacted to address issues relating to competition for local exchange service, the objectives of unbundling are much more far reaching. As we have explained on several occasions, the purpose of unbundling is intended not only to stimulate competition, but to redesign rates in a manner that fosters telecommunications usage, promotes efficient use of telecommunications facilities, ensures cost-based pricing, conveys accurate market signals to customers, and minimizes the likelihood of economically discriminatory rate designs. From a regulatory standpoint, these objectives are as important to the public interest and the economic well being of Oregon telecommunications customers as is the goal of fostering competition.

Essential Facilities Doctrine. GTE, USWC and United contend that the Commission should apply the essential facilities doctrine of antitrust law to determine what network elements are essential functions under the competitive zone statute. The

⁵ USWC, GTE, and United were also parties to the ONA proceeding (docket AR 264) and did not challenge the Commission's authority to order unbundling at that time.

⁶ Official Notice is taken of the Minutes of the House Committee on Commerce. Subcommittee on Business (HB 2203), and Exhibits A through E, May 18, 1993, and Exhibit I (legislative staff's Measure Summary), June 14, 1993.

essential facilities doctrine provides that a firm cannot be required to make a facility available to a competitor unless: 1) a monopolist controls an essential facility; 2) a competitor is unable to practically or reasonably duplicate the essential facility; 3) the competitor has been denied use of the facility; and 4) it is feasible for the monopolist to provide the facility to the competitor. *MCI v. AT&T*, 708 F2d 1081 (7th Cir. 1983).

The LECs contend that there is no basis in the record to conclude that unbundling is essential to new local service providers. They maintain that a functionality may not be found to be essential merely because it would take some time for a competitor to provide the function for itself. The LECs also assert that the Commission may unbundle only those elements that cannot fairly be obtained elsewhere. If a facility can reasonably or practicably be duplicated, it is highly unlikely that it will be considered essential under the essential facilities doctrine. According to the LECs, only terminating access, certain aspects of trunkside interconnection and access to telephone numbers qualify as essential facilities.

The Commission's efforts to advance the public policy goals outlined above should not be constrained by application of the essential facilities doctrine. Such an approach would limit unbundling to the minimum level necessary to avoid antitrust liability on the part of the LECs. In a marketplace dominated by carriers who, until recently, held government authorized monopolies, more extensive unbundling is necessary to foster competition and achieve the other goals we have established. In exercising its regulatory function, the Commission may establish standards which differ from those that apply in antitrust law.

Furthermore, application of the essential facilities doctrine is unnecessary where a comprehensive scheme of regulation governs the services and conduct of regulated firms. The essential facilities doctrine is intended to prevent firms in unregulated markets from unreasonably withholding access to facilities required for competition to develop. Although the LECs in this proceeding face emerging competition in certain markets, they remain subject to rate of return regulation. Regulation shields LECs from risks they would otherwise face in competitive markets because they are legally entitled to a reasonable opportunity to earn a fair return on all assets devoted to utility service. Since the LECs are entitled to this opportunity regardless of whether telecommunications services are offered in bundled or unbundled form, they should be indifferent to the manner in which telecommunications services are provided.

Effect of the Act. The LECs argue that the Act limits Commission authority in a number of ways. First, they argue that the Act limits the authority of State commissions to mandate unbundling. They suggest that the role of State commissions is restricted to mediating and arbitrating interconnection agreements negotiated by carriers. We disagree. Section 251(d)(3) provides that State access regulations that are consistent with the Act and do not substantially prevent implementation of the requirements of the Act shall remain enforceable. Section 261 further provides that State may enforce preexisting regulations or prescribe new regulations provided they are consistent with the Act. That

section further allows a State to impose additional requirements on telecommunications carriers for intrastate services that are deemed necessary to further competition in telecommunications service, provided those requirements are consistent with the Act and any FCC regulations promulgated to implement the Act.

The LECs also argue that unbundling is a form of infrastructure sharing, a concept addressed in Section 259(b)(1) of the Act. Under that section, LECs must make available to qualifying carriers⁷ certain public switched network infrastructure, technology, information, and telecommunications facilities and functions upon request. There are a number of limitations, however. A LEC does not have to share infrastructure facilities in areas where it provides telephone exchange or access services. Infrastructure sharing may also not be compelled with direct competitors or where it is economically unreasonable. The LECs suggest that the FCC may look to the essential facilities doctrine to harmonize the unbundling and infrastructure sharing sections of the Act.

The Commission finds that the unbundling authorized in this order does not conflict with the infrastructure sharing provisions of the Act. To begin with, the infrastructure sharing provisions apply only to a limited category of qualifying carriers, not all competitive providers. To date, we have not designated any carriers in Oregon as "eligible telecommunications carriers" as provided in Section 214(e)(1) of the Act. Such a designation is required before a carrier may be considered a qualifying carrier and before the infrastructure sharing provisions apply.

We also disagree that the essential facilities doctrine applies to the Act. Section 251 of the Act requiring LECs to provide unbundled access to network elements makes no mention of essentiality or the essential facilities doctrine. Absent a clear indication of Congressional intent, we will not imply such a restriction.

Other LEC Arguments. The LECs advance several other arguments against unbundling. They argue that: (a) it is not feasible to allow competitors to share NAC facilities; (b) unbundling should be limited to "stand alone" services; (c) unbundling should be limited to those services that a competitive provider cannot provide for itself; (d) the presence of a minimally sufficient alternative should render a building block nonessential; (e) unbundling will lead to revenue erosion and threaten system integrity; (f) the level of unbundling proposed by Staff and other non-LEC parties is infeasible; and

⁷ Section 259(d) defines qualifying carrier as a telecommunications carrier that: (1) lacks economies of scale or scope, as determined in accordance with regulations prescribed by the FCC pursuant to this section; and (2) offers telephone exchange service, exchange access, and any other service that is included in universal service, to all consumers without preference throughout the service area for which such carrier has been designated as an eligible telecommunications carrier under Section 214(e).

Section 214(e)(1) provides that a qualifying carrier shall be eligible to receive universal service support and shall offer the services that are supported by federal universal service support mechanisms and advertise its services and charges. Section 214(e)(2) provides that a State commission "shall upon its own motion or upon request designate a common carrier that meets the requirements of paragraph (1) as an eligible telecommunications carrier for a service area designated by the State commission."

(g) the burden of proving which functions are essential should not be assigned to LECs. These arguments are addressed elsewhere in this order.

Issue I: Unbundling and Interconnection

Staff. Staff recommends extensive unbundling of network functions to facilitate local competition, uniform pricing, nondiscriminatory access to monopoly building block components, and economic efficiency.⁸ Staff recommends that the Commission require USWC, GTE, and United to offer the list of building block services discussed on pages 17-36 of this order. Staff maintains that its list of building blocks satisfies the Commission's ONA requirements and will permit customers of USWC, GTE, and United to purchase the network function or set of functions necessary to realize the benefits noted above.

Staff's proposed building blocks include network access channels (NACs), NAC connections (NACCs), switching and switching features, interoffice transport, Signaling System 7 (SS7) components, Enhanced 9-1-1 functions, operator services, billing and collection, and other ancillary services. Staff recommends that all building block services be made available for purchase separately or in combination with other network functions that customers provide themselves or buy from LECs or other telecommunications providers.

Staff's proposed building blocks include the unbundled components necessary to provide for lineside interconnection. The list also includes a subset of building block services that customers, including competitive providers, may use to interconnect their own facilities with LEC facilities through collocation or virtual collocation. Staff indicates that, while there will be an immediate demand for many of the building blocks, others may have a limited demand initially. Regardless of the predicted demand, Staff urges the Commission to adopt an aggressive unbundling approach and let alternative exchange carriers (AECs), interexchange carriers (IXCs), and other users decide which building blocks are important.

Initially, Staff recommends that the Commission require USWC, GTE, and United to offer local network services on an unbundled, building block basis only to AECs. Staff maintains that this procedure will make unbundled services available where they are needed the most, and also protect the LECs from significant revenue erosion due to substitution of building block services for bundled services. As a second step, the Commission should conduct rate proceedings for each LEC to determine if rates should be rebalanced. Staff recommends that revised LEC rates incorporate a single intrastate revenue requirement, conform to Commission pricing policies, and meet other applicable

⁸ Staff's proposed building blocks are described in the testimony of Staff witness Jon Wolf. See Exhibit Staff/5, Wolf/8-29.

requirements. All existing use and user restrictions should also be eliminated so that all customers may purchase building blocks based on the same rates, terms and conditions.

Staff acknowledges that the LECs will incur costs to unbundle network functions. It recommends that the LECs be allowed the opportunity to recover all reasonable unbundling costs through rates charged to users of building blocks and/or the general body of ratepayers. Staff believes that the costs of unbundling are outweighed by the long run benefits described above.

Staff's proposed building blocks fall into four general categories: Network Access, Switching and Switch Functions, Transport, and Ancillary services.

Network Access is the building block category that accommodates access to other network functions provided by the LECs. Access is accomplished by transmission paths between customers and LEC serving wire centers,⁹ or any other points of interconnection to the LEC network that may develop in the future. The Network Access category includes Network Access Channels, Network Access Channel Connections, Interconnection, and Network Access Optional Functions.

Network Access Channel (NAC) Subcategory. A NAC is the transmission path between the Minimum Point of Presence at a customer location and the main distribution frame or equivalent of a LEC serving wire center (switching office), or any other point of interconnection to the LEC network that may develop. NACs represent the transmission paths established from an economic mix of facilities necessary to accomplish a customer's desired level of transmission and type of interface to the LEC's network. If offered on a stand alone basis, NACs can be used by potential competitors to create new services where the competitors provide their own terminating and switching equipment. NACs are used as inputs to create bundled services, such as local measured and local flat service. NACs can also be used by customers to provide unique applications such as dedicated private lines.

Staff lists several reasons why NACs should be unbundled. NAC unbundling will facilitate competition in local exchange telecommunications service markets by allowing competitors to use existing LEC network facilities that have been installed as part of the public switched network. Staff points out that competitors will enter markets more quickly if they do not have to petition for rights of ways, install conduit, build new facilities, or purchase unwanted features in bundled services. NAC unbundling should also benefit LECs by creating new markets and by allowing LECs to avoid losses that would otherwise result from complete bypass of the network. End user customers will also benefit from technological innovation and unique applications of NACs in the network.

⁹ Serving wire centers are LEC network hubs that serve as points of aggregation for network access transmission paths and as points of interface to the shared network functionality of the LEC.

Staff recommends unbundling NACs from all other network functionalities, including Switching and NACCs. Unbundling NACs from switching will allow customers to use a NAC for either switched or dedicated applications. Unbundling NACs from NACCs will allow customers freedom in selecting between various switched and dedicated applications. Furthermore, unbundling NAC facilities from NAC electronics will allow customers to uniquely configure transmission parameters.¹⁰

Staff proposes that the LECs be required to unbundled the following types of NACs:

BASIC NAC
 ISDN NAC
 DS1 AND PRIMARY ISDN NAC
 DS3 NAC
 JUMPER NAC 2-WIRE
 JUMPER NAC 4-WIRE
 JUMPER NAC FIBER
 DARK FIBER NAC

For the present, Staff recommends a single statewide average NAC rate for each transmission type. Eventually, each NAC type could be deaveraged by distance and density in a manner that reflects its underlying cost structure.

Network Access Channel Connection (NACC) Subcategory. The NACC subcategory of building blocks refers primarily to various configurations of terminating electronics. NACCs provide the interface between the Basic, DS1 and/or DS3 NAC and the appropriate LEC central office switching equipment, subsequent dedicated transport equipment (dedicated interoffice circuits) or subsequent channel equipment (dedicated intraoffice circuits). Staff recommends unbundling NACCs from both the NAC and switching. Offering NACC elements on a stand alone basis will facilitate competition in an environment where a number of potential NAC and switching providers exist. Staff also advocates unbundling interconnection elements for purposes of providing additional options for collocated customers.

Staff notes that NACCs will continue to be used by LECs in bundled service offerings. NACCs will also be used by competitors to create new services. For example, a cable company that desires to provide telecommunications to its customers may already have an extensive loop network but no telecommunications switch. In this case, the LEC would provide the switching and connectivity (NACC) functions, while the cable company would supply the NACs. In order to offer a complete service, the cable company would seek to connect to the LEC's network via a NACC switched lineside building block.

¹⁰ Some NACs currently have unique transmission requirements that are associated with certain types of terminating electronics. Staff recommends that the LECs offer these NACs separately as long as there is appropriate cost support. Staff states that its NACC building blocks are consistent with the cost information developed in Phase I of this proceeding.

Staff proposes that the LECs be required to unbundle the following NACC building blocks:

NACC (BASIC) DS0 SWITCHED LINESIDE
 NACC (BASIC) DS0 SWITCHED TRUNKSIDE
 NACC (BASIC) DS0 DEDICATED
 NACC DS1 SWITCHED LINESIDE
 NACC DS1 SWITCHED TRUNKSIDE
 NACC DS1 DEDICATED
 NACC DS3 DEDICATED
 NACC ISDN
 NACC FRAME RELAY
 NACC SMDS
 NACC ISDN EXTENSION TECHNOLOGY.

The Basic NACC would be provided with standard signaling and transmission level capabilities suitable for a wide variety of network services. Basic NACCs would be unbundled in a manner which provides the customer a variety of options and applications including switched lineside or trunkside voice and data connections as well as dedicated private line and special access connections. Nonstandard connections and optional electronics are available through the addition of one of Staff's proposed optional network function building blocks discussed below.

Network Access Optional Functions Subcategory. The Optional Network Functions subcategory provides characteristics not included with the standard NAC and NACC capabilities. These functions are related to transmission or service type (analog, digital, coin, ISDN, etc.), bandwidth conversion, signaling, multiplexing, amplification, and channel performance. The basic level NACC, described above, is provided with standard signaling and transmission level capabilities suitable for a variety of network services and applications. Other nonstandard capabilities (*e.g.*, coin service, high voltage power protection) would be available through Staff's proposed optional channel performance building blocks, and could be purchased from LECs separately.

Switching and Switch Functions Category. Switching establishes a temporary transmission path between two or more NACs in the same switching office, or between a NAC and a DSX-1 facility in the switched transport termination building block. Switching includes intraoffice switching (*i.e.*, switching between two or more NACs served from the same switching office), interoffice switching (*i.e.*, switching between NACs and either incoming or outgoing switched transport facilities connected to different switching offices), and tandem switching (*i.e.*, switching between dedicated and switched transport facilities when a tandem switch is used as the first point of interface to the switched network).

Switching, like the NAC and NACC building blocks, is one of the LECs' major network functions. Staff contends that switching should be unbundled to provide

customers with the greatest number of service options and to eliminate disparate treatment. To date, switching has been primarily available only as a bundled service. The price of the switching element historically has been loaded with large subsidies and high markups for some customers, while other customers have enjoyed inexpensive usage. Unbundling switching will permit uniform pricing based on cost and will be used by all customers who desire access to the LEC's switched network.

Staff recommends that the LECs be required to unbundle the following switching building blocks:

END OFFICE SWITCHING PER MINUTE ORIGINATING
 END OFFICE SWITCHING PER MINUTE TERMINATING
 END OFFICE SWITCHING PER MINUTE INTRAOFFICE
 TANDEM SWITCHING PER MINUTE.

Staff proposes that switching be offered on a per minute basis for end office origination, end office termination, end office switching per minute intraoffice, and tandem switching. All customers who use the switching functionalities should pay the same rates. Staff anticipates that flat rated services will be created based on combinations of these building block elements.

Switching Features Category. This category of building blocks provides for call processing beyond the simple connection of a NAC to a NAC, a NAC to outgoing transport facilities, or incoming transport facilities to a NAC. Switching features are associated with Custom Calling, Centrex, CLASS and ISDN. Examples of such features are Call Waiting, Call Forwarding, and Voice Messaging. Staff states that most, if not all, switching features are currently unbundled. Any switch features that are not unbundled, should be. All features should be considered building blocks and offered separately.

Interoffice Transport Category. From a building block perspective, interoffice transport is a very specific functionality. It represents only those facilities owned and operated by a LEC for interoffice transmissions between LEC wire centers. For unbundling purposes, Staff proposes four interoffice transport building blocks: One of the building blocks is switched (or common) transport, and three are dedicated. Switched Transport is a temporary time-sensitive interoffice transmission path between switching offices and/or serving wire centers of a LEC. Dedicated Transport is a full period, bandwidth specific (DS0, DS1, DS3) interoffice transmission path between switching offices and/or serving wire centers of a LEC.

Staff proposes four interoffice transport building blocks for unbundling purposes. It recommends separating the interoffice transport building blocks into two additional groupings --Terminations and Facilities--for rate design purposes.¹¹ A Dedicated

¹¹ "Unbundling" refers to the separate offering of network function or group of functions. Rate design, on the other hand, determines the rate for a given element but does not necessarily assume that the element will be offered separately. For example, Staff recommends that transport facilities and transport terminations each have a unique price. This is important so that a customer is given the proper price signals in the market and can use

Termination is an interface that provides for the transmission conversion (*e.g.*, multiplexing) required between channel connection and dedicated transport facilities. Both Dedicated and Switched Terminations include multiplexing equipment (D4, M13), digital cross connectors (DSX-1, DSX-3) fiber distribution panels, channel units, fiber optic terminating equipment and digital radio terminating equipment.

Dedicated Facilities are full period, bandwidth-specific (DS0, DS1, DS3) interoffice transmission paths established between two points of Dedicated Transport termination. Switched Facilities are temporary interoffice transmission paths established between two points of Switched Transport termination. Dedicated and Switched Facilities both utilize the economics of shared wide band digital fiber optic carrier systems. Cost components for both include fiber and digital radio carrier systems, repeaters and intermediate multiplexers.

Staff recommends that the LECs be required to provide the following transport building blocks¹²:

INTEROFFICE TRANSPORT TERMINATION SWITCHED
INTEROFFICE TRANSPORT TERMINATION DEDICATED DS0
INTEROFFICE TRANSPORT TERMINATION DEDICATED DS1
INTEROFFICE TRANSPORT TERMINATION DEDICATED DS3
INTEROFFICE TRANSPORT FACILITIES COMMON
INTEROFFICE TRANSPORT FACILITIES DEDICATED DS0
INTEROFFICE TRANSPORT FACILITIES DEDICATED DS1
INTEROFFICE TRANSPORT FACILITIES DEDICATED DS3

Ancillary Services Category. Staff proposes the following ancillary services building blocks:

INTERCEPT
OPERATOR ASSISTANCE
MEASUREMENT POLLING
BILLING & COLLECTIONS IAB (ACCESS)
BILLING & COLLECTIONS CRIS (MTS/LOCAL)
BILLING & COLLECTIONS CRIS (WATS/800)
BILLING & COLLECTIONS (LOOP)
CUSTOMER ID CHARGE (800)
OPERATOR SERVICE CHARGES - BASIC CALLING CARD
OPERATOR SERVICE CHARGES - STATION (INCL. CONNECT TO DA)
OPERATOR SERVICE CHARGES - PERSON

that information to make more knowledgeable purchasing decisions. However, Staff does not recommend that transport facilities and transport terminations each be made available separately, because these functions are integrated and represent only a single LEC's wire center to wire center transmission path.

¹² This list does not include mileage band transport building blocks. Those building blocks are set forth in Appendices B and C.

OPERATOR SERVICE CHARGES - BUSY LINE VERIFY
OPERATOR SERVICE CHARGES - BUSY LINE INTERRUPT
DIRECTORY ASSISTANCE
MAIN DIRECTORY LISTINGS
PREMIUM LISTINGS
PRIVATE LISTINGS.

Operator services building blocks provide a number of live or mechanized assistance functions to aid customers in (1) obtaining customer telephone number, street address and ZIP code information (Directory Assistance); (2) providing new telephone numbers or explanatory information to callers who dial numbers that have been changed or disconnected (Intercept); (3) providing assistance to customers in completing Operator Handled toll or local calls (Collect, Calling Card, Third Party, Station To Station, or Person To Person); (4) checking "busy" lines to make sure the line is not out of service (Busy Verification); and (5) interrupting busy lines in emergency call situations (Busy Interruption).

Measurement building blocks involve the measurement of calls at the switch and the function of assembling, collating and transmitting end office switch record call data to be processed by the Regional Accounting Office for billing.

Billing and Collection functions involve compiling information needed for customer billing, preparing the billing statement, disbursing the bill and collecting the customer payments, including any collection activity required for late payment or non-payment of accounts. The Billing and Collection building blocks include a number of cost components.

SS7 Functions. Staff also recommends unbundling Signaling System 7 (SS7) network functions. This proposal is discussed under Issue I(c) below.

Other Network Functionalities. Staff observes that the Enhanced 9-1-1 network is already unbundled and should remain that way. The 9-1-1 network currently utilizes NACs and interoffice transport. In addition, certain unique functions should also remain available. These functions include:

ENHANCED 9-1-1 CODE RECOGNITION
ENHANCED 9-1-1 AUTOMATIC NUMBER IDENTIFICATION
ENHANCED 9-1-1 AUTOMATIC LOCATION IDENTIFICATION
ENHANCED 9-1-1 ALI/SELECTIVE ROUTING
ENHANCED 9-1-1 SELECTIVE ROUTING INCOMING TRUNKS
ENHANCED 9-1-1 SELECTIVE ROUTING OUTGOING TRUNKS
ENHANCED 9-1-1 ALI NODE PORTS.

USWC. As noted above, USWC and the other LECs assert that Commission authority to order unbundling is circumscribed by ORS 759.050, and extends only to essential functions offered within designated competitive zones. USWC's interpretation of

“essential function” excludes all network components that a competitor provides for itself. Based on this reasoning, USWC contends that the only essential functions that may be unbundled by the Commission are terminating access, access to telephone numbers and certain aspects of trunkside interconnection. USWC claims there is insufficient evidence in the record to demonstrate that any other network functions are essential.

In addition to its arguments regarding essentiality, USWC argues that (a) the unbundling proposals advanced by Staff and other non-LEC parties improperly disaggregate telecommunications services into network *components*, as opposed to network *functions*; (b) unbundling should be limited to functions for which there is a proven customer demand, and (c) that unbundling should not compromise network integrity or security.

Although USWC claims that most of the building blocks identified by Staff and intervenors are not essential, it proposes to make several of the building blocks proposed by Staff available in tariffed services.¹³ USWC does not, however, agree to unbundle all of Staff's proposed building blocks into services that may be purchased separately.¹⁴ USWC's proposals are as follows:

Local Transport Restructure. USWC's local transport restructure (LTR) represents the company's effort to restructure transport charges to align with transport building blocks and to offer trunkside interconnection. The proposal mirrors changes that have occurred in the interstate jurisdiction. The transport charges in the LTR fall into four categories:

(a) Direct Trunked Transport provides a carrier with a dedicated link between the end office serving the end user and the wire center that serves the carrier's point of presence. It is available at voice grade, DS1 and DS3 levels. Direct Trunked Transport has two rate elements, a fixed monthly charge corresponding to the dedicated interoffice transport termination, and a variable charge per mile per month corresponding to the interoffice transport facilities dedicated. USWC's proposed rates are the same as those for comparable private line services.

¹³ Appendix B compares the building blocks proposed by Staff with those proposed by USWC, GTE and United.

¹⁴ For example, USWC does not propose to unbundle the lineside local switch connection from the NAC which runs between the switch and a customer's premises. Thus, a competitor could not self-provision the NAC and purchase a lineside channel connection (lineside NACC) from USWC. Also, the Expanded Interconnection Channel Termination service offered by USWC (and described below) consists of several of the building blocks identified by Staff, none of which may be purchased separately. In addition, USWC states that certain services cannot be separately provided for technical reasons. Custom calling features such as call waiting, for example, must be purchased with USWC local switching, since USWC cannot technically provide call waiting on local service provided from a competitor's switch. On the other hand, because USWC can provide switching with or without call waiting, both switching and call waiting are tariffed separately.

(b) Tandem Switched Transport includes the tandem switching function, plus common transport between the serving wire center and the tandem or end office, transport between the tandem and subtending end offices, and transport between all remote end offices and their host offices. The customer can choose Tandem Switched Transport as an alternative to a dedicated direct trunked transport link to a given end office. Tandem Switched Transport has three rate elements, all charged on a per minute of use basis.¹⁵

(c) Entrance Facilities consist of a NAC plus channel performance, and link the customer's point of presence with the customer's serving wire center. Entrance facilities are available at voice grade, DS1, or DS3 levels at flat monthly rates. USWC proposes entrance facility rates equal to the rates for comparable private line services (*i.e.*, channel termination and channel performance.)

(d) Multiplexers are available for voice grade and DS1-DS3 connections. USWC proposes flat monthly rates equal to private line rates for multiplexers.

Switched Access Expanded Interconnection. USWC's trunkside interconnection proposal--Switched Access Expanded Interconnection--is available to carriers that virtually collocate at the serving wire center, tandem switch, or end office switch. Customers subscribing to this service pay a monthly rate for Expanded Interconnection Channel Termination (EICT). The EICT has been tariffed in the interstate jurisdiction. Because the interstate and intrastate services of interexchange carriers are inextricably linked, USWC recommends that the EICT also be approved in Oregon.

USWC states that its proposed switched access rate elements correspond to the interoffice transport and NAC building blocks identified by the Staff with two exceptions, local switching and voice grade entrance facilities. USWC also states that the intercept, operator assistance, measurement polling and billing and collection functions should continue to be bundled with local switching. It argues that these functions are necessary to assist customers in the event a call is not completed, to generate and collect data on switch usage, to generate bills and to collect for service provided. USWC's voice grade entrance facility is a four-wire NAC that is bundled with channel performance parameters appropriate for switched access service. USWC claims that channel performance is necessary for the entrance facility to function and should not be unbundled.

LIS-Link. USWC proposes to introduce an unbundled NAC product called LIS-Link (Local Interconnection Services Link). LIS-Link is a transmission path between the main distribution frame located in USWC's serving office and the point of termination at the appropriate interface located on the premises of an AEC. LIS-Link is available only

¹⁵ Customers choosing tandem switched transport have a choice between paying usage sensitive rates for all transport between the serving wire center and the end office or paying a combination of usage-sensitive rates for the transport between the end office and the tandem plus direct trunked transport rates for the transport between the tandem and the serving wire center