

BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

IN THE MATTER OF)	
)	Docket No. UT-003013
)	PART A
)	
THE CONTINUED COSTING AND PRICING)	OPENING BRIEF OF
OF UNBUNDLED NETWORK ELEMENTS)	TELIGENT SERVICES, INC.
AND TRANSPORT AND TERMINATION)	
_____)	

1. TELIGENT SERVICES, INC., ("Teligent") hereby submits its Opening Brief in the above-referenced matter. This brief deals exclusively with the issues surrounding microwave collocation, which are designated as items V(A)(6) and V(B)(7) in the case brief outline.

I. INTRODUCTION

2. The Telecommunications Act of 1996,¹ established a pro-competitive, deregulatory national policy framework for telecommunications in order to open all telecommunications markets to competition.² One of the Act's core market-opening provisions is section 251(c)(6), which requires incumbent LECs:

[T]o 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 . . .

¹ Pub.L. 104-104, Title VII, Feb. 8, 1996, 110 Stat. 153, *codified at* 47 U.S.C. §§ 151 *et seq.* ("the Act").
² Joint Statement of Managers, S. Conf. Rep. No. 104-230, 104th Cong. 2d Sess. 1 (1996)(*Joint Explanatory Statement*).

3. The Federal Communications Commission (“FCC”) has adopted regulations implementing this provision to ensure that collocation is available in a timely manner and on terms and conditions that are just, reasonable, and nondiscriminatory.³ As noted by the FCC on several occasions, the timely provisioning of physical collocation space is critically important to telecommunications carriers’ ability to compete effectively in the markets for advanced services and other telecommunications services.⁴ Thus, the Act and the FCC have recognized that timely and nondiscriminatory collocation is an essential predicate to development of competition.—

4. Notwithstanding this strong national policy and the federal requirement that incumbent LECs provide specific collocation arrangements in a timely manner and on terms and conditions that are just, reasonable, and nondiscriminatory, Qwest Corporation, f/k/a U S WEST Communications, Inc., (“Qwest”) and Verizon Northwest Inc., f/k/a GTE Northwest Incorporated (“Verizon”) fail to recognize microwave collocation as a required method of physical collocation and, instead, propose to treat it in a discriminatory fashion. Neither company has proposed rates for microwave collocation. In contrast to other methods of physical collocation, the ILECs propose to subject microwave collocation applications to the *bona fide request* (“BFR”) process and to individual case basis (“ICB”) prices. If the ILECs are allowed to subject microwave collocation applications to the BFR process and ICB pricing, they will essentially have succeeded in subjecting

³ See Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, CC Docket No. 96-98, First Report and Order at ¶573 (rel. Aug. 8, 1996)(“Local Competition Order”); In re Deployment of Wireline Services Offering Advanced Telecommunications Capability, First Report and Order and Further Notice of Proposed Rulemaking, 14 FCC Rcd. 4761, at ¶23 (1999)(“Advanced Services Order”).

⁴ In re Deployment of Wireline Services Offering Advanced Telecommunications Capability and Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, Order on Reconsideration and Second Further Notice of Proposed Rulemaking in CC Docket No. 98-147 and Fifth Further Notice of Proposed Rulemaking in CC Docket No. 96-68, CC Docket Nos. 98-147 & 96-98, FCC 00-297, at ¶22, n.53 (rel. Aug. 10, 2000)(“FCC Collocation Recon. Order”).

fixed wireless service providers to the kind of significant uncertainty and delay that can serve as a barrier to competition.

5. As a competitor that primarily utilizes fixed wireless technology to route its competitive services, Teligent is concerned that the ILECs will be permitted to vitiate the technology neutral principles on which the Act was based by discriminating against providers seeking to interconnect via microwave collocation arrangements. Because microwave collocation is a required form of physical collocation,⁵ it must be offered, to the maximum extent possible, on the same standard terms and conditions, in a one-stop methodology, applicable to other forms of physical collocation.

6. As discussed herein, both Qwest and Verizon have acknowledged that microwave collocation is substantially similar to conventional physical collocation arrangements except for the need to place wireless CLEC interconnection-related equipment on the central office rooftop (or other suitable exterior space) in addition to within the central office. Given these similarities, Qwest and Verizon can easily provide standard rates for the rental of the rooftop space and for any building penetration required.⁶

⁵ 47 C.F.R. § 51.323(d)(4). *See also id.* §§ 51.323(b)(2) (defining equipment covered by collocation obligation to include that which is collocated to terminate basic transmission facilities pursuant to § 64.1402); §64.1402(b) (establishing the right of interconnecting carriers to collocate microwave transmission facilities as part of the FCC's expanded interconnection regime). *See also* Local Competition Order ¶ 582.

⁶ Verizon provides such standard rates in interconnection agreements it has entered into with Teligent for a number of states. In addition, in both New York and Massachusetts, Verizon has tariffed standard rates.

Indeed, Qwest and Verizon have essentially provided all of the cost information required to develop these standard rates. Only where extraordinary circumstances exist (such as the need to reinforce a rooftop or construct a non-standard building penetration to accommodate the cabling between the outdoor microwave unit and the indoor unit) would ICB prices be required. Accordingly, the processes and costs applicable to the standard components of microwave collocation (outdoor unit, indoor unit, and the cabling connecting the two) should be no different than those that apply for standard collocation arrangements and easy to determine from the cost information already submitted. Thus, Qwest and Verizon should be ordered to file collocation tariffs that offer microwave collocation at standard prices and on standard terms and conditions, in a one-stop methodology, subject to the provisioning requirements applicable to other forms of collocation.

II. QWEST'S COST AND PRICING PROPOSAL (SECTION V(A)(6) OF CASE OUTLINE)

COLLOCATION

QWEST'S COST AND PRICING PROPOSAL

6. MICROWAVE COLLOCATION

7. Microwave collocation is a method of interconnection whereby microwave transmission equipment is physically collocated on the rooftop or suitable exterior space of an ILEC central office. Under a microwave collocation arrangement, the CLEC, at its own expense, procures, installs and maintains the microwave equipment located on the rooftop or other exterior mounting of the ILEC central office. The CLEC then has the option of procuring, installing and maintaining the cable from its exterior microwave facilities to the collocation space inside the central office through inside conduit space leased to it by the ILEC, much the same way a facilities-based fiber carrier brings its fiber in from the ground up to its collocation space within the ILEC central office.⁷

⁷ See Cross-examination of Brotherson, Tr. 649, l. 13 – 650, l. 3:

Q. . . . Do you agree with me that a microwave collocation involves a fixed wireless provider [procuring] and installing on a central office roof a microwave antenna, mast and supporting structures. Then, if there is not a weatherproof penetration available, penetration through the roof into the building would have to be created, cable would have to be extended through the building riser cable down to the collocation space located inside the building, and then appropriate interconnection equipment would have to be placed in either a caged or cageless collocation facility. Do you agree that that's an accurate description of what would happen with microwave collocation?

A. I believe so. . .

Q. Well, would you agree that once a microwave collocator penetrates the roof of the building and is inside the building, that then most of the collocation activities are the same as they would be for a standard physical collocator coming in through the ground, the basement, whatever?

A. I would agree.

8. The FCC recognizes microwave collocation as a legitimate form of physical collocation and requires that it be made available to CLECs. Under the FCC's Rules, "[w]hen an incumbent LEC provides physical collocation, virtual collocation, or both, the incumbent LEC shall . . . permit physical collocation of microwave transmission facilities except where such collocation is not practical for technical reasons or because of space limitations, in which case virtual collocation of such facilities is required where technically feasible."⁸ Plainly, this FCC rule requires incumbent LECs to permit the physical collocation of microwave facilities. Moreover, in its Local Competition Order, the FCC explicitly recognized microwave collocation as a required type of physical collocation.⁹

9. Because microwave collocation is a legitimate form of physical collocation that must be made available to CLECs, Teligent submits that it would be discriminatory for the Commission to subject CLECs utilizing fixed-wireless technology unnecessarily to more burdensome, costly or lengthy procedures for interconnection via microwave facilities than those applicable to other types of technology. Indeed, Section 251(c)(6) of the 1996 Act requires that physical collocation be provided on a nondiscriminatory basis.¹⁰ For this reason, the rates, terms and conditions for microwave collocation should, to the maximum extent practicable, mirror those adopted for other forms of physical collocation.

10. Microwave collocation, as a form of physical collocation, is substantially similar to

⁸ 47 C.F.R. § 51.323(d)(4). *See also id.*, §§ 51.323(b)(2) (defining equipment covered by collocation obligation to include that which is collocated to terminate basic transmission facilities pursuant to § 64.1402); §64.1402(b) (establishing the right of interconnecting carriers to collocate microwave transmission facilities as part of the FCC's expanded interconnection regime).

⁹ *See* Local Competition Order ¶ 582.

¹⁰ 47 U.S.C. § 251(c)(6).

conventional physical collocation arrangements except for the need to place fixed-wireless CLEC interconnection-related equipment on the central office rooftop (or other suitable exterior space) in addition to within the central office. Indeed, the cost of providing the riser cable between the exterior microwave facilities and the wireless CLEC's collocation space inside the central office building and the cost of providing the caged or cageless collocation arrangement used by the wireless CLEC is no different from what is required to provide collocation to a fiber-based CLEC. Accordingly, the processes and costs applicable to these components of microwave collocation should be no different than those that apply for standard collocation arrangements.

11. Qwest's witness Brotherson essentially confirmed this in the following testimony:

Well, would you agree that once a microwave collocator penetrates the roof of the building and is inside the building, that then most of the collocation activities are the same as they would be for a standard physical collocator coming in through the ground, the basement, whatever?

I would agree.

And the rate elements costs that have been identified by Qwest and submitted in this proceeding then would apply to those activities; is that correct?

Yes, that's correct.

So really, what we're talking about here that's unique to a microwave collocator is focused on what takes place on the rooftop and the penetration of the roof; is that correct?

A. That's correct. It's almost like the entrance facility for a company across the street. I would say that in terms of penetration of the roof, there have been instances in 3-D central offices where AT&T may own intervening floors, but it's not necessarily gone through the roof, but rather then placed on the outside of the building. But that's a small difference.¹¹

¹¹ Cross-examination of Larry Brotherson, Tr. 650, l. 10 – 651, l. 8.

12. This testimony suggests that the incumbent LECs can provide standard rates for the rental of the rooftop space required for the installation of the antenna, roof mounts and supporting structure and attendant equipment. For instance, the per square foot recurring rate charged for exterior collocation space should be no more than the per square foot recurring rate applied to interior collocation space in the same building. In fact, the rate for exterior space should be less than that charged for interior space due to the extra elements required for interior space such as climate control, air conditioning, lighting, etc. As Mr. Brotherson acknowledged, the exterior collocation space utilized by a fixed wireless CLEC for microwave collocation does not require heating, ventilation, air conditioning, lighting, or any type of power source:

Okay. Now, with respect to what happens on the rooftop with a microwave collocator, it would be necessary for the collocator to rent space; is that correct?

Correct.

And the space that's rented would not require any heating, ventilation, air conditioning; is that correct?

Yes, that's a general rule.

Are the space rental costs that are identified in the cost studies and estimates presented by Qwest in this proceeding, do they include heating, ventilation, air conditioning, lighting in the costs?

I believe there are some basic components that you listed that are incorporated into the rental space. There are some additional charges if there are incremental additions, but yes, I believe those are included in the rental space.

So would you agree, then, that an appropriate space rental charge for rooftop space should be no higher, and perhaps less, than the rental charge that is imposed for space inside the building?

I would agree, to the extent that no additional requirements are involved to place the equipment on the roof.¹²

13. Unfortunately, the space rental cost information provided by Qwest does not include a specific breakout for the costs associated with providing heating, ventilation and air conditioning (“HVAC”). However, there is a ready means for determining that amount, which is supplied and used by Verizon in the development of its space rental costs. At pages 469 through 475 of the Transcript, Mr. Thompson describes the derivation of Qwest’s proposed space rental charge. In sum, Qwest used information from a R.S. Means study to develop construction costs for an average central office, again using a project size modifier from a table in the R.S. Means study to adjust the figures for the difference in size of the average central office in the R.S. Means study and the size of the average Qwest central office. Other adjustments were made to account for inflation and other items. The resulting building investment figure is set forth at line six, page one, Exhibit C-57.¹³

14. To develop an appropriate building investment figure to be used in calculating a rooftop space rental charge for microwave collocation, the costs of HVAC should be removed. According to Verizon witness Richter, 16% of total building investment cost is related to providing HVAC.¹⁴ The source for that 16% is R.S. Means,¹⁵ which is the same resource used by Qwest to develop its building construction cost estimates. Thus, using the same resource Qwest uses to

¹² Cross-examination of Brotherson, Tr. 651, l. 12 – 652, l. 13.

¹³ Tr. 474, l. 17 – 18.

¹⁴ Tr. 1477, l. 18 – 1478, l. 7.

¹⁵ Tr. 1478, ll. 9-11.

develop its building interior space rental costs, appropriate costs for rooftop space rental can be simply developed. The Commission need only order Qwest to subtract 16% from the building investment figure on line six, page one, Exhibit D-57, and recalculate the per square foot monthly space rental charge.

15. The only remaining cost to be developed is the cost associated with creating a new rooftop penetration if one is not already available. As Mr. Thompson testified, Qwest has submitted costs for coring.¹⁶ Mr. Hubbard then confirmed that the “roof is a load-bearing concrete structure normally,” and that, if Qwest bores through the roof, “it is a concrete bore, much like an entrance facility bore.”¹⁷ He then went on to state that, in a lot of cases, Qwest would run the cable down the outside of the building and enter through a different means, even perhaps through the underground POI hole.¹⁸ Thus, Qwest has already developed costs associated with the penetration of the building and such costs could be used to determine the coring costs associated with microwave collocation.

16. According to Mr. Hubbard, because Qwest has had only twelve requests for microwave collocation, the company has addressed them on an ICB basis.¹⁹ The mere number of requests cannot relieve Qwest of its obligation to develop some standard prices for configurations, especially when those configurations involve the same types of work and coring for which standard costs have already been developed. If there is a truly unique situation presented, then ICB pricing would be appropriate. However, Qwest has offered no compelling reason why the entire microwave collocation request process needs to be subjected to the lengthy and unpredictable BFR/ICB process

¹⁶ Tr. 479, ll. 13 – 15.

¹⁷ Tr. 739, ll. 18 – 22.

¹⁸ Tr. 739, l. 22 – 740, l. 1.

¹⁹ Tr. 740 – 41.

to accommodate the need to occasionally depart from standard building penetration methods.

17. Qwest maintains the position that microwave collocation as a whole will be available only pursuant to BFR process and at individual case basis (“ICB”) prices,²⁰ even though, as discussed above, its witnesses agree that most of the activities associated with microwave collocation are substantially similar to conventional physical collocation arrangements. As the Commission is well-aware, the BFR process and ICB pricing are not appropriate for microwave collocation, because they introduce a considerable amount of uncertainty into both the collocation ordering process, provisioning intervals and the costs involved. They can also be unduly burdensome and time consuming. Since a successful result from the negotiation process inherent in the BFR process is by no means guaranteed, a fixed wireless CLEC is faced with the prospect that microwave collocation could be effectively denied if the ILEC delays the availability of any one of the parts necessary for it. Moreover, ICB pricing costs cannot be known until the final bid is received or construction is complete. As stated by COVAD/Rhythms witness Klick:

[ICB pricing] represents an inappropriate and unnecessary barrier to competitive entry, because it deprives CLECs of a critical element of certainty in their market entry decisions. Under an ICB approach, CLECs would have to wait until they receive an ICB-based quote from an ILEC before they would be able to make an intelligent market entry decision. In addition, ILECs seek to force CLECs to pay the ILEC for preparing the quote, and the procedures for challenging the ICB cost that an ILEC develops for a particular circumstance are unclear and, in any event, undoubtedly would be time consuming. In short, one could hardly envision a pricing mechanism – to use that term very loosely – that would be more likely to discourage competition.²¹

In sum, the BFR process and ICB pricing deprive CLECs of needed certainty in making their market

²⁰ Ex. 55, 56; Tr. 476 – 77.

²¹ Ex. T-182 at 4, ll. 7 – 16.

entry decisions. Therefore, they can become a significant factor in retarding the rollout of service to additional customers by CLECs.

18. ICB pricing generally is premised on the uniqueness of a particular application. Thus, if a particular application or element has never been contemplated before and the elements comprising it are such that a new provisioning process and costing analysis need to be conducted, a BFR process with ICB pricing is appropriate. However, as discussed above, most of the elements needed for microwave collocation can easily be provided with standard terms, conditions and prices for collocation elements provided for wireline physical collocation arrangements. While there may be minor process elements associated with microwave collocation, as there are with any service offering, that may have to be examined on a case-by-case basis, they should be subordinate to the standard microwave collocation offering and should not be allowed to unduly complicate or delay the standard offering.

19. Therefore, contrary to the position of Qwest, microwave collocation should be available through a tariffed offering on standard, non-ICB terms, conditions, and rates, so that fixed wireless CLECs have advance notice of all of the costs and conditions associated with microwave collocation. Further, there is no reason why fixed wireless CLECs should not be able to avail themselves of a “one-stop,” workable microwave collocation process that clearly and concisely includes access to the three basic components of microwave collocation: rooftop installation of the microwave equipment, a standard collocation arrangement inside the central office building and the cabling between the two.

20. Teligent respectfully submits that Qwest should be ordered to develop a microwave collocation tariff offering on standard, non-ICB terms, conditions and rates to the maximum extent

possible. Such a standard tariff would significantly help address the needs of microwave collocation by eliminating the uncertainty, opportunity for denial, and recipe for mischief inherent in the BFR process and ICB pricing.

**VERIZON'S COST AND PRICING PROPOSAL
(SECTION V(B)(7) OF CASE OUTLINE)**

COLLOCATION

VERIZON'S COST AND PRICING PROPOSAL

MICROWAVE COLLOCATION

21. Like Qwest, Verizon has failed to propose prices and submit costs for microwave collocation. Thus, substantially the same points made above with respect to Qwest can be made with respect to Verizon. Accordingly, Teligent incorporates here the general arguments made above with respect to Qwest in Section V(A)(6).

22. While acknowledging that the FCC's rules state that an ILEC must permit physical collocation of microwave transmission facilities except where such collocation is not practical for technical reasons or because of space limitations, Verizon, in a response to a Teligent data request,²² stated that it is the company's desire not to place equipment on the roof of its buildings.²³ Notwithstanding this preference, Verizon's own collocation tariff provides: "Physical collocation of microwave transmission facilities will be permitted except where such collocation is not practical for technical reasons or because of space limitations."²⁴ That tariff also provides that requests for microwave collocation "can be submitted through the collocation process or via the BFR process."²⁵

²² Ex. 297.

²³ Tr. 147, l. 24 – 148, l. 9.

²⁴ Ex. 299 (Verizon's tariff WNU-20, sheet 6.1, ¶ 2.6).

²⁵ Id.

It also states that the additional rate elements necessary for microwave collocation still need to be developed.²⁶

23. Although Verizon has not specifically included microwave collocation costs and prices in its filing in this case, the company does acknowledge in Exhibit 297 that “[f]or a rooftop microwave collocation arrangement, several of the existing cost elements that are currently in the collocation cost study could be used for equipment installation within the central office.” Verizon then specifically lists engineering fees, facility cable pulls, cable terminations, and floor space rental.²⁷ On cross-examination, Mr. Richter agreed that once a microwave collocator’s cable has entered the central office building from the rooftop or other exterior space, the microwave collocator “is requiring the same types of activities from Verizon, presenting the same kind of costs to Verizon as a standard fiber based co-locator would present that’s coming in at the basement.”²⁸ He also agreed that the cost study Verizon presented in this case includes all of the elements applicable to pulling the cable to the CLEC collocation area and covering the collocation arrangements for either caged or cageless collocation.²⁹

24. With respect to rooftop space rental costs, Mr. Richter explained the development of the floor space costs presented in Verizon’s cost study at pages 1476 through 1479 of the transcript. Basically, the floor space costs presented by Verizon are “costs to provide environmentally conditioned floor space based on the average cost per square foot plus costs to account for shared floor space.”³⁰ In developing those costs, Verizon identified the portion of building investment that

²⁶ Id.

²⁷ Ex. 297; Tr. 1474, ll. 6-8.

²⁸ Tr. 1474, ll. 10 – 19.

²⁹ Tr. 1474, l. 20 – 1475, l. 17.

³⁰ Ex. 290 at 15.

is related to providing HVAC. It did so using an RS Means study.³¹ Mr. Richter also agreed that a microwave collocator that is placing an antenna and related structures and equipment on the roof of a Verizon building does not need HVAC.³² It follows that an appropriate rate for rooftop space rental can be easily derived from the evidence already in this record by simply subtracting 16% from the total building investment cost reported by Verizon in its study. In fact, the specific calculation is described at page 1479, line 5 through 1480, line 3. Teligent submits that the Commission should order Verizon to develop a cost and rate for rooftop space rental using this calculation.

25. The only area identified by Mr. Richter where Verizon has not already presented information that can be used to develop microwave collocation costs relates to the costs, if any, that would be associated with reinforcing the roof if it “was not of sufficient loading to hold whatever equipment would be that would be placed on it.”³³ However, if additional work were required, it could, and appropriately would, be charged for separately. There is no reason why the rest of the microwave application could not go forward on an integrated basis, with standard terms, conditions, and prices, according to the same process and procedures that are applicable to standard collocation arrangements.

26. Given the Verizon “preference” not to locate any microwave transmission equipment on the roof of a Verizon building, it is clear the company has the incentive to abuse the BFR process and ICB pricing to delay microwave collocation or even deter completely a fixed wireless CLEC, such as Teligent, from requesting it. Thus, it is all the more important that the Commission order

³¹ Tr. 1478, ll. 5 – 11.

³² Tr. 1480, ll. 4 – 8.

³³ Tr. 1480, ll. 21-22.

Verizon to comply with its obligations under the FCC's rules to offer microwave collocation as a standard form of physical collocation. Moreover, fixed wireless CLECs, such as Teligent, should not be needlessly forced to face the considerable amount of uncertainty with respect to process and cost that is inherent in the BFR process and in ICB pricing, particularly when it is clear that microwave collocation is substantially similar to conventional physical collocation and when most of the costs associated with providing microwave collocation can easily be identified.

IV. CONCLUSION

27. For the foregoing reasons, Teligent requests that the Commission order Qwest and Verizon to recognize interconnection through microwave collocation as an additional method of physical collocation and develop a tariffed offering for microwave collocation that provides standard, non-ICB terms, conditions and rates, so that fixed wireless CLECs have advance notice of all of the costs and conditions associated with microwave collocation and so that they can obtain such microwave collocation on a timely and nondiscriminatory basis.

RESPECTFULLY SUBMITTED this 6th day of October 2000.

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