Development of ILEC Wire Center Lists

"Non-Impaired" DS1/DS3 Loops and Transport

Eschelon Telecom, Inc.

Commission Workshop (UT-053025)

February 1, 2006

RMS
A

Outline

- Eligible and ineligible wire center lists for Verizon and Qwest
- FCC's "non-impaired" standard
- Reasonably Diligent Inquiry
- Advantages and Necessity of Commission Approval Process
- ILEC's claims of "non-impaired" wire centers in Washington
- Financial impact of wire centers designated as "non-impaired"
- Issue protective order – next steps

Commission Direction to Parties and Staff

In Docket Number UT-043013 (Order No. 18 ¶¶12 & 19), the Commission affirmed the ALJ's recommendation (in Order No. 17 ¶¶ 106, 116-17) to consider in this docket: "developing lists of eligible and ineligible wire centers for both Verizon and Qwest, as well as a process for updating the lists."

Which wire centers are eligible for the list?
FCC's "Non-Impaired" Standard
"based upon objective and readily obtainable facts" (TRRO ¶234)

- Unbundled Loops
  - DS1 Loops

    47 C.F.R. §51.319(a)(4)(i)
    - Wire Centers with 60,000 or more business lines
    - **AND**
    - at least four (4) fiber based collocators
  - DS3 Loops

    47 C.F.R. §51.319(a)(5)(i)
    - Wire Centers with 38,000 or more busines lines
    - **AND**
    - at least four (4) fiber based collocators
- Unbundled Transport
  - DS1 Transport

    47 C.F.R. §§51.319(e)(2)(ii)(A) & (e)(3)
    - Wire Centers with 38,000 business lines
    - **OR**
    - at least four (4) fiber based collocators
  - DS3 Transport

    47 C.F.R. §§51.319(e)(2)(iii)(A) & (e)(3)
    - Wire Centers with 24,000 business lines
    - **OR**
    - at least three (3) fiber based collocators

Definitions (47 C.F.R. § 51.5)

- **Business Line**
  - A business line is an incumbent LEC-owned switched access line used to serve a business customer, whether by the incumbent LEC itself or by a competitive LEC that leases the line from the incumbent LEC. The number of business lines in a wire center shall equal the sum of all incumbent LEC business switched access lines, plus the sum of all UNE loops connected to that wire center, including UNE loops provisioned in combination with other unbundled elements. Among these requirements, business line tallies (1) shall include only those access lines connecting end-user customers with incumbent LEC end-offices for switched services, (2) shall not include non-switched special access lines, (3) shall account for ISDN and other digital access lines by counting each 64 kbps-equivalent as one line. For example, a DS1 line corresponds to 24 64 kbps-equivalents, and therefore to 24 "business lines."

- **Fiber Based Collocator**
  - A fiber-based collocator is any carrier, unaffiliated with the incumbent LEC, that maintains a collocation arrangement in an incumbent LEC wire center, with active electrical power supply, and operates a fiber-optic cable or comparable transmission facility that (1) terminates at a collocation arrangement within the wire center; (2) leaves the incumbent LEC wire center premises; and (3) is owned by a party other than the incumbent LEC or any affiliate of the incumbent LEC, except as set forth in this paragraph. Dark fiber obtained from an incumbent LEC on an indefeasible right of use basis shall be treated as non-incumbent LEC fiber-optic cable. Two or more affiliated fiber-based collocators in a single wire center shall collectively be counted as a single fiber-based collocator. For purposes of this paragraph, the term affiliate is defined by 47 U.S.C. § 153(1) and any relevant interpretation in this Title.

Reasonably Diligent Inquiry

- **FCC View**
  (TRRO ¶234 & fn 659)
  - To submit an order, CLEC "must undertake a reasonably diligent inquiry" and self-certify that its request is consistent with the FCC criteria. A CLEC order "indicates" that it meets the criteria, if CLEC has provided such self certification.
  - CLEC "is unlikely to have in its possession all information necessary;" so the CLEC certifies "only to the best of its knowledge."
  - Upon receiving an order, the ILEC "must immediately process the request."
  - If ILEC seeks to challenge a CLEC order, ILEC must "subsequently" bring any dispute "before a state commission or other appropriate authority."

- **ILEC View**
  (TRRO Amendments & Qwest "PCAT")
  - To submit an order, CLEC must review the ILEC proposed wire center list. If a wire center is on the ILEC proposed list, CLEC should not place the order and ILEC may reject CLEC's order.
  - ILEC will not provide CLEC data upon which ILEC's claims in its proposed list are based.
  - ILEC will immediately process a CLEC order, **only if** the wire center is not on the ILEC proposed list.
  - If a CLEC questions a wire center on the ILEC proposed list, CLEC can not submit any order in that wire center until after it brings a dispute through the *appropriate* (FCC?) jurisdiction.

CLEC Offer to Compromise:
Advantages and Necessity of Commission Approval Process

- CLEC duty to its shareholders – CLEC can not reasonably rely upon unverified assertions of its major vender/competitor. Therefore, CLEC should be able to place orders based on self-certification, without consulting an ILEC wire center list. Eschelon is willing to compromise, however, and consult a wire center list provided that, after party review of the underlying data, the Commission approves the list. Evidence that the wire center lists need independent review includes:
  - ILECs have had data errors or problems counting Fiber Based Collocators to date.
  - It is unknown whether ILEC data for fiber based collocation and business line counts are from the same time period.
- Commission protective order – requested to alleviate any ILEC concerns regarding proprietary data.
- Administrative efficiency – one time review to avoid multiple case by case disputes.
  - Established process to update the lists will provide notice and opportunity to be heard and help avoid future procedural disputes.
- Financial Impacts -- "non-impaired" wire center designations have significant financial implications.

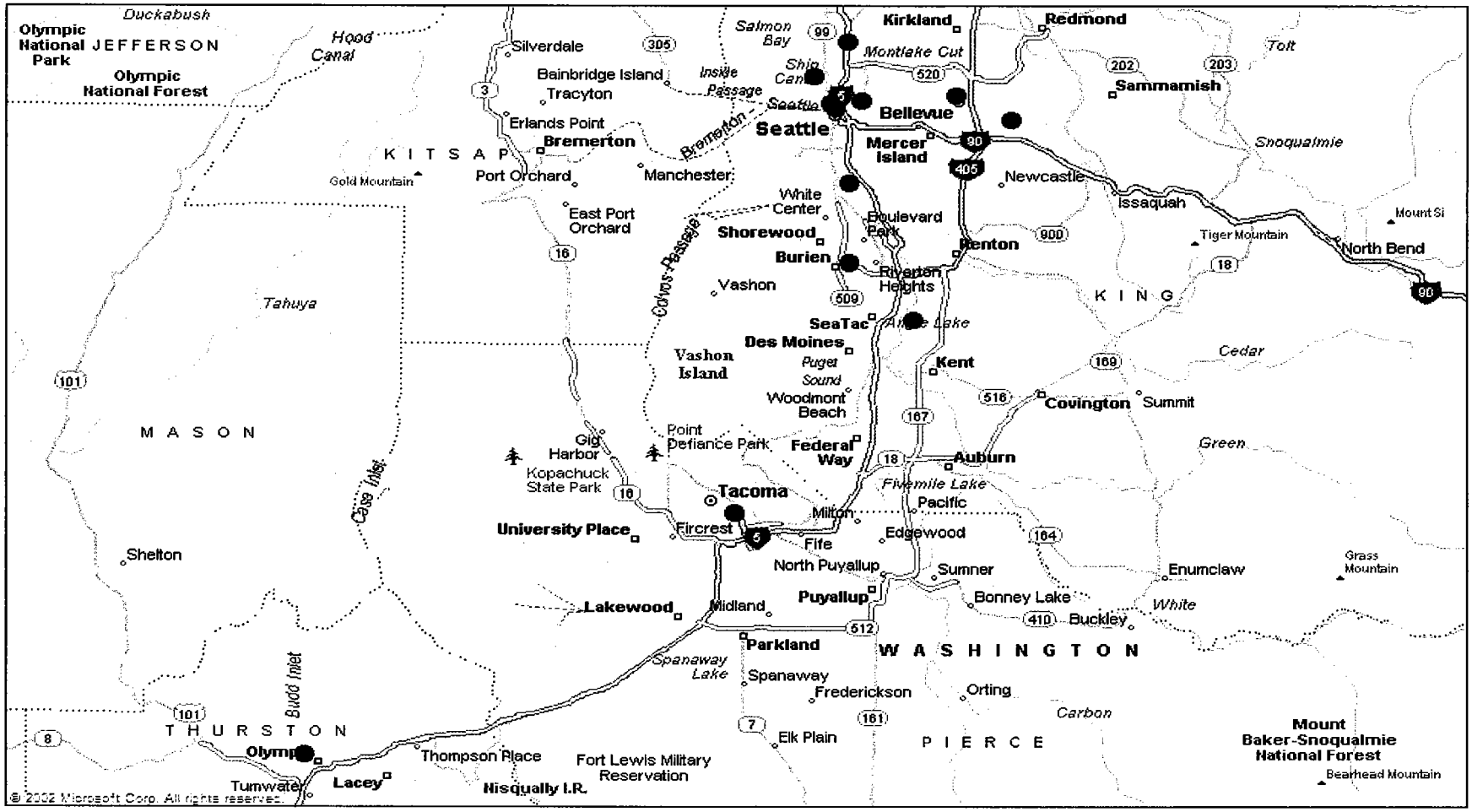
Qwest's "Non-Impaired" Loops -- Proposed Wire Center List

Date added / removed	Wire Center Name	CLLI8	Loops
8-Jul-05	~~KENT O BRIEN~~	~~KENTWAOB~~	~~DS3~~
11-Feb-05	SEATTLE MAIN	STTLWA06	DS1 & DS3

Qwest's "Non-Impaired" Transport Proposed Wire Center List

Date added / removed	Wire Center Name	CLLI8	LATA	Tier
11-Feb-05	BELLEVUE GLENCOURT	BLLVWAGL	674	2
11-Feb-05	BELLEVUE SHERWOOD	BLLVWASH	674	1
11-Feb-05	KENT O BRIEN	KENTWAOB	674	1
11-Feb-05	OLYMPIA WHITEHALL	OLYMWA02	674	1
11-Feb-05	SEATTLE ATWATER	STTLWA05	674	1
11-Feb-05	SEATTLE CAMPUS	STTLWACA	674	1
11-Feb-05	SEATTLE CHERRY	STTLWACH	674	2
8-Jul-05	SEATTLE DUMWAMISH	STTLWADU	674	2
11-Feb-05	SEATTLE EAST	STTLWA03	674	1
11-Feb-05	SEATTLE ELLIOT	STTLWAEL	674	1
8-Jul-05	SEATTLE MAIN	STTLWA06	674	1
11-Feb-05	SPOKANE RIVERSIDE	SPKNWA01	676	1
11-Feb-05	TACOMA FAWCETT	TACMWAFA	674	2

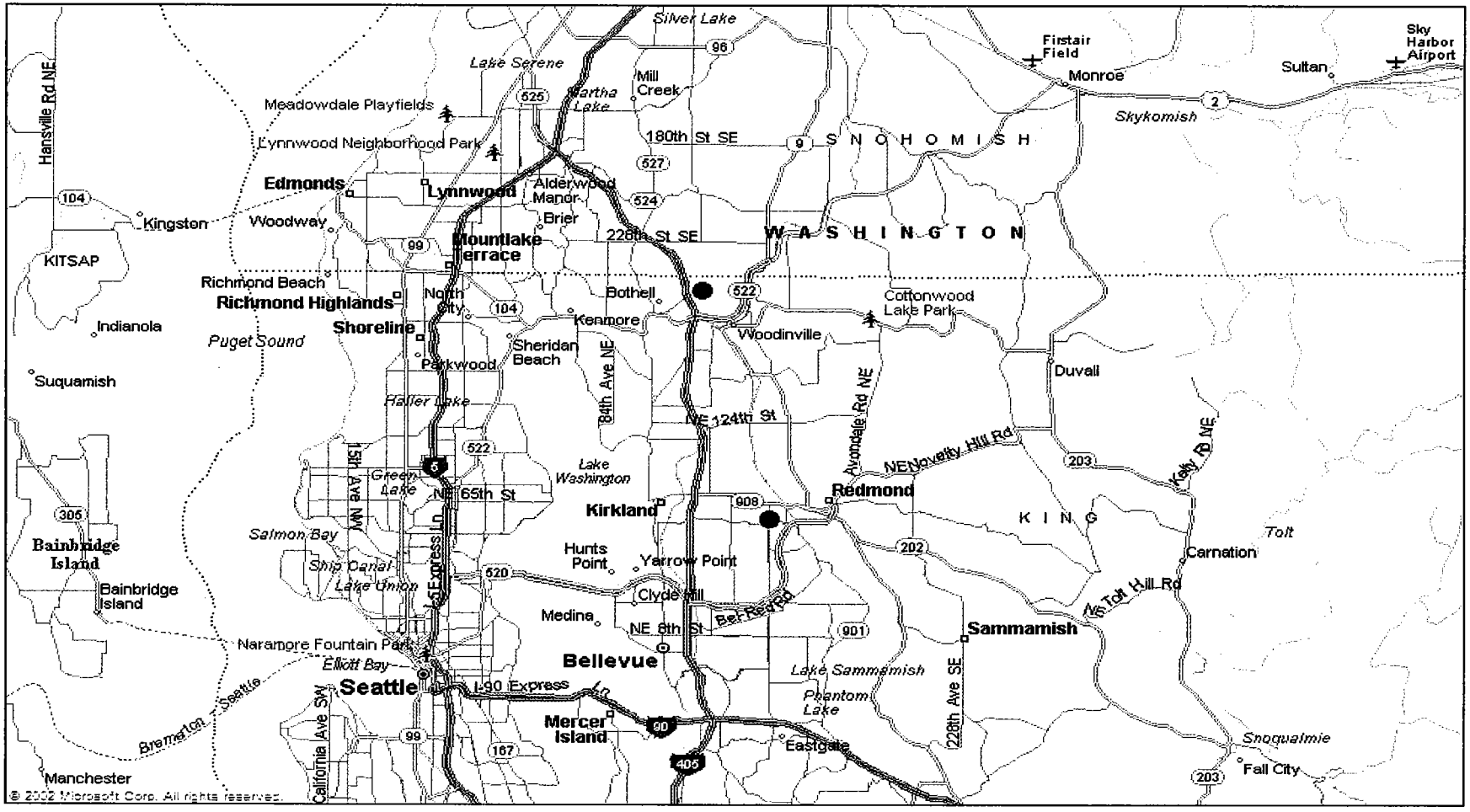
Qwest Tier 1 and Tier 2 Wire Centers



Verizon's "Non-Impaired" Transport -- Wire Center List

Date added / removed	Wire Center Name	CLLI8	LATA	Tier
2-Mar-05	REDMOND	RDMDWAXA	674	1
2-Mar-05	BOTHELL	BOTHWAXB	674	2

Verizon Tier 1 and Tier 2 Wire Centers



Washington Wholesale Rate Comparison
UNE Rates versus Qwest "Non-Impaired" Rates

Rate Element	Current UNE Rate	Qwest Proposed UNE Rate (UT-023003)	Qwest "Non-Impaired" Rate	"N-I" % Increase from Qwest Proposed UNE	"N-I" % Increase from Ordered UNE
Dark Fiber Transport Per Mile	$ 53.14	$ 116.06	$ 400.00	244.6%	652.7%
DS1 Loop (Seattle Main)	$ 68.86	$ 89.90	$ 112.30	24.9%	63.1%
DS3 Loop (Seattle Main)	$ 599.81	$ 1,058.99	$ 1,400.00	32.2%	133.4%
DS1 Transport Fixed	$ 33.12	$ 54.40	$ 70.00		
DS1 Transport Per Mile	$ 0.65	$ 3.36	$ 10.00		
DS1 Transport 10 Miles	**$ 39.62**	**$ 88.00**	**$ 170.00**	93.2%	329.1%
DS3 Transport Fixed	$ 225.41	$ 350.66	$ 330.00		
DS3 Transport Per Mile	$ 11.55	$ 42.81	$ 39.00		
DS3 Transport 10 Miles	**$ 340.91**	**$ 778.76**	**$ 720.00**	-7.5%	111.2%

Notes & Sources

- The Current UNE Rates are taken from the Qwest SGAT Exhibit A (http://www.qwest.com/wholesale/clecs/sgatswireline.html)
- The Qwest Proposed UNE Rates are taken from Qwest's price proposal exhibit (TKM-2) in the UNE cost case Docket UT-023003. These rates were described in Qwest cost studies in that docket. (http://www.wutc.wa.gov/rms2.nsf/177d98baa5918c7388256a550064
- Qwest Proposed "Non-Impaired" rates for dark fiber come from Qwest's recent (11/23/05) commercial offer to CLECs. (http://www.qwest.com/wholesale/downloads/2005/051202/QDFExARateSheet11-23-05.xls)
- Qwest "Non-Impaired" rates for DS1/DS3 Loops and Transport comes from Qwest's interstate access tariff section 7.11.4 & 7.12.4 - (http://tariffs.qwest.com:8000/idc/groups/public/documents/tariff/htmltoc_fcc1.htm)

Washington Wholesale Rate Comparison
UNE Rates versus Verizon "Non-Impaired" Rates

Rate Element	Current UNE Rate	Verizon "Non-Impaired" Rate	"N-I" % Increase from Ordered UNE
Dark Fiber Transport Per Mile	$ 120.06	?	
DS3 Transport Fixed	$ 118.34	$ 701.25	
DS3 Transport Per Mile	$ 16.80	$ 131.78	
DS3 Transport 10 Miles	**$ 286.34**	**$ 2,019.05**	605.1%

Notes & Sources

- The Current UNE Rates are taken from the Verizon UNE Tariff (https://retailgatew ay.bdi.gte.com:1490/view docact.asp?system_id=2967499&lib=TMPI_PCDP_LIB&doc=103991&checkout=false&fileExt=.PDF&Frameset=Created)

- Verizon "Non-Impaired" rates for DS3 Transport comes from Verizon's interstate access tariff section 7.5.9(B)(1)(d) (https://retailgatew ay.bdi.gte.com:1490/view docact.asp?system_id=2951795&lib=TMPI_PCDP_LIB&doc=103687&checkout=false&fileExt=.PDF&Fr

Next Steps

(see CLEC Proposal – Wire Center List and Update Process)

- Address confidentiality ASAP
  - WUTC protective order – similar to cost case orders
  - One time WUTC notice to CLECs with protective order
  - Ongoing ILEC notices to CLECs, when wire centers are added to list
- Ensure sufficient supporting data are provided with filing and establish process to inquire about the data
  - Initial list
    - Set CLEC objection date
    - Send WUTC notice to carriers
    - Set ILEC date
    - Set exchange of information period
  - Additions/updates to the list
    - Establish set intervals for each update
- Approve undisputed wire centers and resolve disputes
  - Set dates by which CLEC must object to inclusion of wire center on the list
    - If no objection, approve list
    - If objection(s), approve undisputed wire centers, resolve disputes

CLEC Proposal – Docket No. UT-053025

WIRE CENTER LIST AND UPDATE PROCESS

In Docket Number UT-043013 (Order No. 18 ¶¶12 & 19), the Commission affirmed the ALJ's recommendation (in Order No. 17 ¶¶ 106, 116-17) to consider in this docket: "developing lists of eligible and ineligible wire centers for both Verizon and Qwest, as well as a process for updating the lists."

Below is the CLECs' proposed approach for this developing the lists and updates.

1. **ADDRESS CONFIDENTIALITY ASAP**: The earlier a protective order is issued, the earlier CLECs may begin to verify the ILEC (Verizon and Qwest) supporting data and the parties can attempt to reach agreement or at least narrow the issues.

WUTC PROTECTIVE ORDER – SIMILAR TO COST CASE ORDERS: The Commission should issue a protective order regarding confidentiality. The protective order should be similar to those issued in the ILEC cost cases. All of the Joint CLECs are willing to sign such a protective order and to allow their data to be shared in this matter pursuant to the terms of such a protective order.

A more limited protective order, such as the one in the competitive classification case (UT-050258) (which limited certain data to staff access), would be overly restrictive in this matter. Unlike the competitive classification matter, this matter does not involve CLEC circuit-specific line counts, but instead relies upon aggregated line counts per wire center. This line count data is much more similar to the type of data provided in the recent cost case, UT-023003, than in the competitive classification docket. The only CLEC specific data involves whether the CLEC is a fiber based collocator in particular offices contained on the ILEC wire center list. CLEC fiber based collocaton is not of the same sensitive nature as circuit-specific line counts and can be properly handled through a standard protective order.

ONE-TIME WUTC NOTICE WITH PROTECTIVE ORDER: The Commission should issue a notice to telecommunications carriers in the state describing the process and how to participate and enclosing a copy of the protective order (or indicating how to obtain a copy).

- Indicate the date on which ILECs will be submitting their initial wire center lists with supporting data and require any objecting CLECs to object to the WUTC before that date.

ONGOING ILEC NOTICES TO CLECs, WHEN WIRE CENTERS ARE ADDED TO LIST: Before ILECs file a proposal and supporting data asking to add a wire center to an approved wire center list, ILECs would issue a notice to CLECs informing them of the filing, notifying them that the filing (which will be filed as confidential pursuant to the protective order) may contain a CLEC's confidential data, advising CLEC that it may obtain data in the docket by signing the protective order, and indicating that, if a CLEC objects, the CLEC should contact ***the Commission*** before a given date. These notices would be similar to the notices that ILECs currently send with respect to requests for CLEC-specific data (see enclosed examples).

ATTACHMENT A – JOINT CLEC PROPOSAL – UT-053025
Data Requirements for Review of ILEC Wire Center Lists

Data Requirement 1: Provide a detailed description of the methodology relied upon to count business lines and fiber based collocators. If the wire center is classified as Tier 1 or Tier 2, provide an indication of whether the ILEC relies on (a) the number of fiber based collocators, (b) the number of business lines, or (c) both for the Tier designation of the wire center.

Data Requirement 2: If the wire center is classified as "non-impaired" for DS1 or DS3 loops or if the wire center is classified as Tier 1 or 2 and the ILEC relies on the number of fiber based collocators [case (a) above], provide the following for each wire center:

(i) The total number of fiber based collocators as defined in 47 C.F.R. § 51.5.
(ii) The date on which the number of fiber based collocators was determined.
(iii) The name of each fiber based collocator.
(iv) If the ILEC requested affirmation from the carrier regarding whether or not a carrier, that is included in part (iii) above, was a fiber based collocator, an indication as to whether the carrier affirmed, denied or did not respond to the ILEC's request.

Data Requirement 3: If the wire center is classified as "non-impaired" for DS1 or DS3 loops or if the wire center is classified as Tier 1 or 2 and the ILEC relies on the number of business lines [case (b) above], provide the following for each wire center.

(i) The total number of business lines as defined in 47 C.F.R. § 51.5.
(ii) The date represented by the business line count data. Note: If different components of the business line counts come from sources representing different points in time, then each component should be identified and the correcsponding date for each component provided.
(iii) Total ILEC business switched access lines
(iv) If the methodology used to determine the line counts in (iii) above differ from the methodology used to determine switched business line counts for ARMIS 43-08, describe the differences and any data that would allow parties to reconcile this data.
(v) Total UNE Loops
(vi) Number of Business UNE Loops provided in combination with ILEC switching (e.g. UNE-P, QPP, or ILEC other ILEC Commercial arrangement).
(vii) Number of UNE Loops where the ILEC does not provide switching.
(viii) If the total of (vi) and (vii) does not equal (v), explain the difference including any data that would allow parties to reconcile this data.
(ix) Indicate whether the loop counts in (vii) include only business UNE loops. If not, provide the data for (vii) business UNE loops.

Qwest
Spirit of Service

September 21, 2005

Kim Isaacs
Eschelon Telecom Inc.
730 2nd Avenue South - Suite 900
Minneapolis, MN 55402
kdisaacs@eschelon.com

TO:Kim Isaacs

Announcement Date:	**September 21, 2005**
Effective Date:	**September 22, 2005**
Document Number:	**GENL.09.21.05.B.001080.TRACERS_Sec_Four_Data_Req**
Notification Category:	**General Notice**
Target Audience:	**Select CLECs**
Subject:	**Docket No. UX29 – TRACER's Second and Fourth Sets of Data Requests**

Please ensure that this letter is routed to those individuals within your company who are responsible for maintaining your telephone services in the State of Oregon.

Qwest has received a number of data requests from TRACER, in connection with Docket No. UX29 - Qwest's Petition for Exemption from Regulation of Switched Business Services. Tracer has asked for the following:

1. Qwest's responses to PUC Staff Set 1
2. Qwest's responses to PUC Staff Request Nos. 63-67 (Set 14)
3. Qwest's responses to PUC Staff Request Nos. 68-69 (Set 15)
4. Qwest's responses to PUC Staff Request Nos. 72-73 (Set 17)
5. Qwest's response to PUC Staff Request No. 82 (Set 22)

In responding to the above requests, Qwest is required to use wholesale information, and Qwest considers this information highly confidential because an informed observer would determine which CLEC is interconnected at a particular wire center.

Qwest is required to provide this information and will provide it to TRACER on September 23, 2004. All confidential and highly confidential information is subject to the protective order entered in Docket UX29.

If you object to Qwest providing TRACER with this data, please contact me at 303.383.6680 or email address of Meraj.Abdul-Qadir@qwest.com no later than 4:00 p.m. Mountain Time on September 22, 2005.

Sincerely,

Qwest
Spirit of Service

January 24, 2005

Bonnie Johnson
Eschelon Telecom Inc.
730 2nd Avenue South - Suite 900
Minneapolis, MN 55402
bjjohnson@eschelon.com

TO:Bonnie Johnson

Announcement Date:	**January 24, 2005**
Effective Date:	**N/A**
Document Number:	**CONT.01.24.05.A.001293.Colorado_PUC_Docket_Data_Rqt_06-019**
Notification Category:	**Contract Notifications**
Target Audience:	**Select CLECs**
Subject:	**04A-411T and 04D-440T In the Matter of the Combined Application of Qwest Corporation for Reclassification and Deregulation of Certain Part 2 Products and Services and Deregulation of Certain Part 3 Products and Services; Staff of the Colorado Public Utilities Commission's Petition for a Declaratory Order Concerning the Reclassification and Deregulation of Telecommunications Services Under Parts 2 and 3, Title 40, Article 15 of the Colorado Revised Statutes**

Please ensure that this letter is routed to those individuals within your company or agency who are responsible for maintaining your telephone services in the State of Colorado.

The Colorado Public Utilities Commission Staff, in the above-referenced docket requests that Qwest provide information that is CLEC-specific. The request is as follows:

Audit Request: Staff 06-019:

> ***For each interconnection agreement identified in the question 6-18 of this 6"' set of data requests, provide a copy of the most recent monthly bill for Colorado interconnection services sent or transmitted to the provider under the agreement. In addition, please identify the month and year that the provider first purchased unbundled network switching, loop, or UNE-platform elements from Qwest.***

Qwest intends to respond to this request and will provide this information on a Highly Confidential basis to those who have executed the appropriate Highly Confidential Non-Disclosure Agreement, pursuant to the Protective Order entered in this docket. If you object to the provision of this Highly Confidential information, please contact Kathy Rowley, Qwest, 1801 California Street, Suite 1000, Denver, CO 80202 or 303-383-6679 within 5 days of receipt of this letter.

Qwest Washington TRRO Summary

High-Capacity Loops

- DS1 Loop Unbundling Test. Subject to the transition below, unbundled DS1 loops will continue to be available, except to any building within the service area of any wire center containing:
  (1) 60,000 or more business access lines, ***and***
  (2) 4 or more fiber-based collocators.
- DS3 Unbundling Test. Subject to the transition below, unbundled DS3 loops will continue to be available, except to any building within the service area of any wire center containing:
  (1) 38,000 or more business access lines, ***and***
  (2) 3 or more fiber-based collocators.

Qualifying Wire Center(s):

Wire Center	Business Equivalent Loops	Fiber-based Collocators	Level
Seattle Main	102,862	≥4	DS-1/3

High Capacity Dedicated Transport

- DS1 Transport Unbundling Test. Unbundled DS1 transport will continue to be available, except on routes connecting a pair of wire centers, where both wire centers contain:
  (1) 4 or more fiber-based collocators, ***or***
  (2) 38,000 or more business access lines.
- DS3 and Dark Fiber Transport Unbundling Test. Unbundled DS3 and dark fiber transport will continue to be available, except on routes connecting a pair of wire centers, where both wire centers contain:
  (1) 3 or more fiber-based collocators, ***or***
  (2) 24,000 or more business lines

Qualifying Wire Center(s):

Wire Center	Business Equivalent Loops	Fiber-based Collocators	Level
Bellevue Sherwood	24,146	≥4	DS-1/3
Kent O'Brien	45,179	≥4	DS-1/3
Olympia Whitehall	28,465	≥4	DS-1/3
Seattle East	19,609	≥4	DS-1/3
Seattle Main	102,862	≥4	DS-1/3
Seattle Elliott	18,954	≥4	DS-1/3
Spokane Riverside	31,617	≥4	DS-1/3
Bellevue Glencourt	37,392	<4	DS-3
Seattle Cherry	25,867	<4	DS-3
Tacoma Fawcett	24,017	<4	DS-3

Analog Business Services Competitive Classification - Update

Analog Wholesale Services	UT-030614 12/31/02 Volumes	9/30/05 Volumes	9/30/05 Percentage Increase
Resale	7,275	3,301	-
UNE-P / QPP*	45,168	59,555	31.9%
Unbundled Loops	51,576	77,660	50.6%
Total	104,019	140,516	35.1%

* With the TRO, Qwest has been converting UNE-P lines to commercially contracted QPP lines. The QPP lines contained in the 9/05 volumes represent the same type of analog UNE-P business services represented by the 12/31/02 UNE-P quantities. The breakdown of 9/30/05 UNE-P / QPP volumes is as follows: QPP = 55,267; UNE-P = 4,288.

Qwest

Total CLEC Resale, UBL, UNE-P Business Lines	Qwest Analog Business Lines	Total CLEC and Qwest Business Lines	% CLEC Minimum Market Share	% Qwest Maximum Market Share
104,019 – 12/31/02	520,635 – 12/31/02	624,654 – 12/31/02	17%	83%
140,516 – 9/30/05	438,573 – 9/30/05	579,089 – 9/30/05	24%	76%

Staff – UT-030614

Total CLEC Resale, UBL, UNE-P, & ***CLEC owned*** Business Lines	Qwest Analog Business Lines	Total CLEC and Qwest Business Lines	% CLEC Minimum Market Share	% Qwest Maximum Market Share
231,030	520,635	751,665	31%	69%

MAY 04, 2005

Speakeasy Networks Pushes Pre-WiMax from Top of Space Needle

BY GLENN FLEISHMAN

Dramatically, Speakeasy Networks had its formal press announcement for its dense downtown Seattle pre-WiMax network on the observation level: I was there this morning when executives from Speakeasy, Intel, and Alvarion described the components of the new five-building-top pre-WiMax network that blankets downtown Seattle. The network is live today with early customers and will go into a fully available service with 48 hours from order to live network June 15, according to today's announcement. (View photo gallery on Flickr.)

Speakeasy has been testing this network for months, and securing building rights. They wanted to be the exclusive 5.8 GHz tenant for the buildings they chose to avoid competition for these choice locations. They're on top of five buildings, which include the Space Needle and the Westin Building, where all of the major telecommunications links for the Pacific Northwest converge.

Unlike TowerStream, which eschews terrestrial wire as much as they can, Speakeasy didn't build a wireless ring in the air. They're using their own private fiber-optic connections leased from AboveNet to serve their pre-WiMax feeds. In a shot at TowerStream, the company is describing their network as the largest densest network of its kind.

The company expects to hit a very large zone of downtown Seattle with a single package of an aggregated 6 Mbps of bandwidth for $800 per month. That can be split into 3 Mbps upstream and 3 Mbps downstream, 4 up and 2 down, or 4 down and 2 up. An unlimited bandwidth T-1 line in Seattle (1.5 Mbps in each direction for an aggregate of 3 Mbps) is about $500 to $550 per month. Two T-1s cost double that for equipment, setup, and monthly fees, and involve some networking tricks to turn them into a single fabric.

A T-1 requires about three weeks to install; Speakeasy is promising 48 hours when they launch the service for all-comers June 15. For the next month, they will be selectively signing up interested businesses. The company said that they are trying to bust WiMax myths, and are promising their 6 Mbps aggregate service only within 1 1/2 to 2 miles of a transmitter in a zone they've defined very densely.

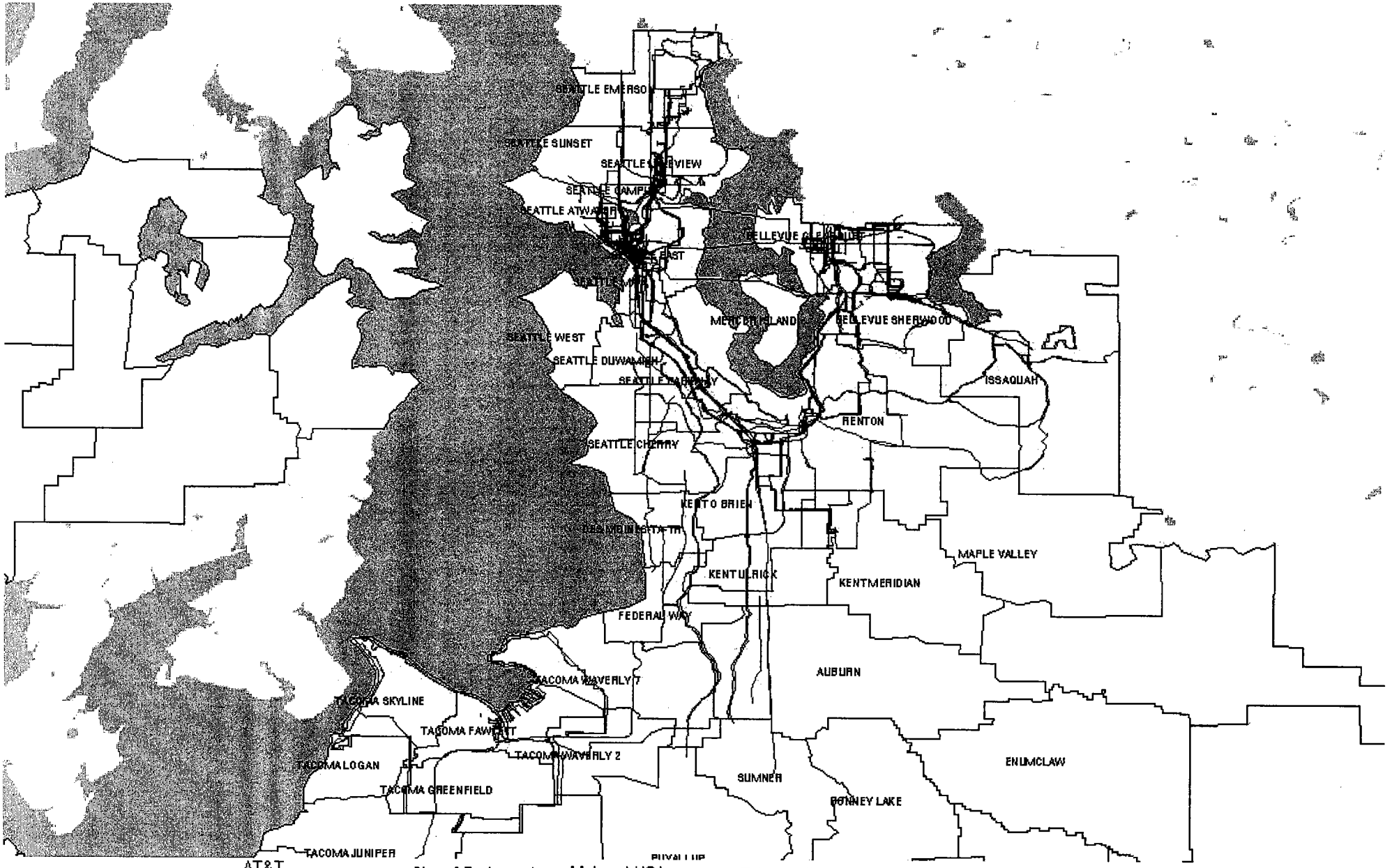
Speakeasy's CEO Bruce Chatterley said that Speakeasy is going after "the traditional customer base for the telephone monopolies." Voice isn't part of the mix yet because, as Chatterley said later in an interview, pre-WiMax gear isn't robust enough to support VoIP with business-level quality. When partners Alvarion and Intel, which has also invested in Speakeasy, make available production WiMax gear, Speakeasy will start testing voice applications, said Umesh Amin, Speakeasy vice president in charge of their WiMax Initiative.

Chatterley said that the company has no worries about using the relatively empty 5.8 GHz unlicensed band, although he and Amin noted that licensed spectrum is of great interest whenever it comes available. Both explained their desire for the 2.5 GHz band mostly controlled by Sprint and Nextel, which they hope and expect will be opened up at an unknown point in the future.

Chatterley said in general remarks that the company was on track for $70 million in revenue this year and $100 million next year with 13,000 business customers purchasing DSL and other high-speed services nationwide, or about 15 percent of their customer base. Chatterley noted later that 100 percent of their new DSL customers are being installed on naked DSL, which is a phone line with no phone company services loaded on it.

Seattle MSA
Competitive Facility Overview

Qwest



Competitive Fiber
Qwest Wire Centers
Water Bodies
Non-Qwest Territory

AT&T
Above Net - MFN
Adelphia Comm
Bellevue School Dist
CSX
City of Bellevue

City of Redmond
Electric Lightwave
Green Star Telecom
Level 3
Looking Glass
MCI Worldcom

McLeod USA
Puget Sound Energy
Sprint
Starcom
Summit
Tacoma Click

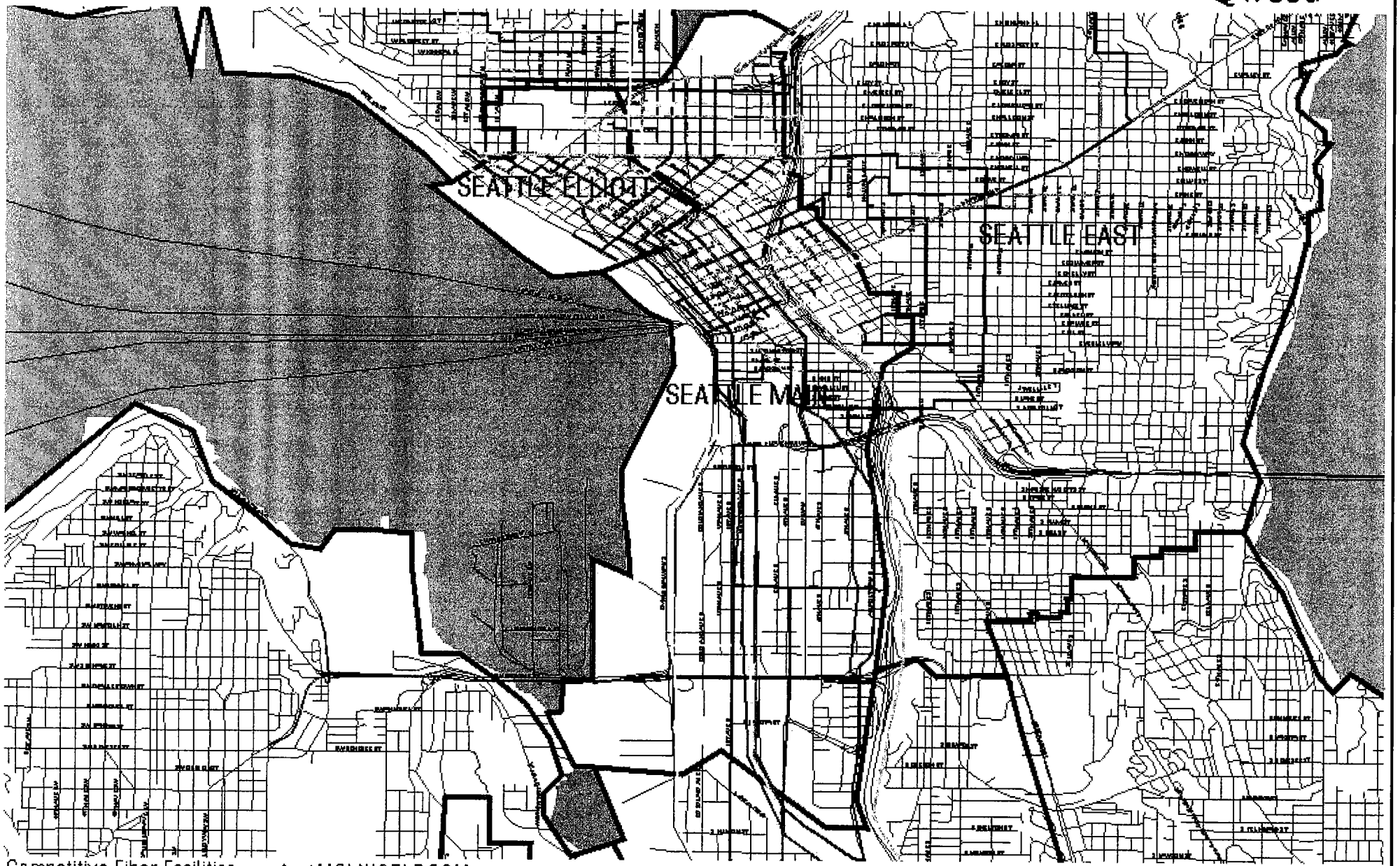
Telseon-On Fiber
Time Warner
Touch America
US Crossings
Viacom
Vialite

Williams Comm
Worldwide Fiber
XO Comm

01/25/2006

Seattle Downtown
All Competitive Fiber Facility Overview

Qwest



Competitive Fiber Facilities
- 360 NETWORKS
- AT&T ELECTRIC LIGHTWAVE
- FUTURE LEVEL 3
- MCI WORLDCOM
- METROMEDIA
- SUMMIT
- TIME WARNER
- US SPRINT USCROSSINGS
- WILLIAMS
- XO COMMUNICATIONS
- Streets
- Qwest Wire Centers
- Water Bodies

NOTE: Facilities Inventoried 2001

01/25/2006

1/31/06

Level 3 Wholesale

- "Metro Private Line Service: Our comprehensive metro service suite includes Ethernet, private line, wavelength and dark fiber options. We can work collaboratively with you to design a network that best meets your specific needs – in a solution that provides a flexible, cost-effective alternative to the ILEC. Level 3 is making continuous network investments to support your need to scale quickly and ensure efficient bandwidth for growth." (www.level3.com).
    - Link Metro Private Line is a dedicated, point-to-point protected metro transport service offered at rates of DS-3, OC-3, STM-1, OC-12/12c, STM-4/4c and OC-48/48c.

- Level 3 customers see and aggregate **savings of at least 20 percent when compared to the ILEC**. (emphasis added). Our customers have achieved significant cost savings. (www.level3.com).

- Level 3 fully owns and operates a facilities-based metro network, for direct control of end-to-end network quality. (www.level3.com)

- The metro networks connect Level 3 data centers to key traffic aggregation points in each market, including central offices, telecom hotels, customer sites and data centers operated by other carriers. In aggregate, Level 3's metro networks comprise almost one million miles of installed fiber and connect 850 on-net buildings. (www.level3.com/3385.html).
    - Note: Seattle is a Level 3 Metro Private Line market.

Level(3)®
COMMUNICATIONS

(3)Link® Metro Private Line Service

THE WORLD'S MOST SOPHISTICATED NETWORK USERS RELY ON LEVEL 3 FOR METRO SERVICES

THE WORLD'S MOST SOPHISTICATED NETWORK USERS RELY ON LEVEL 3 FOR METRO SERVICES

Demanding metro buyers with growing bandwidth needs partner with Level 3 to design, build and grow the most reliable and flexible metro networks. We have experience and expertise to manage everything from the initial planning and design, to permitting and construction, to installation and on-going management of your metro network solution. Our comprehensive metro service suite includes Ethernet, private line, wavelength, and dark fiber options. We can work collaboratively with you to design a network that best meets your specific needs – in a solution that provides a flexible, cost-effective alternative to the ILEC. Level 3 is making continuous network investments to support your need to scale quickly to ensure sufficient bandwidth for growth. And because we have end-to-end control of our diverse, facilities-based network, we deliver all of these capabilities over a network of unparalleled quality and reliability.

SERVICE OVERVIEW

(3)Link Metro Private Line service is a dedicated, point-to-point, protected metro transport service offered at line rates of DS-3, OC-3, STM-1, OC-12/12c, STM-4/4c, and OC-48/48c. The service is available in 27 markets in North America and nine markets in Europe.

MEETING CUSTOMER NEEDS

(3)Link Metro Private Line service is uniquely designed to meet requirements for flexibility, availability, and cost savings.

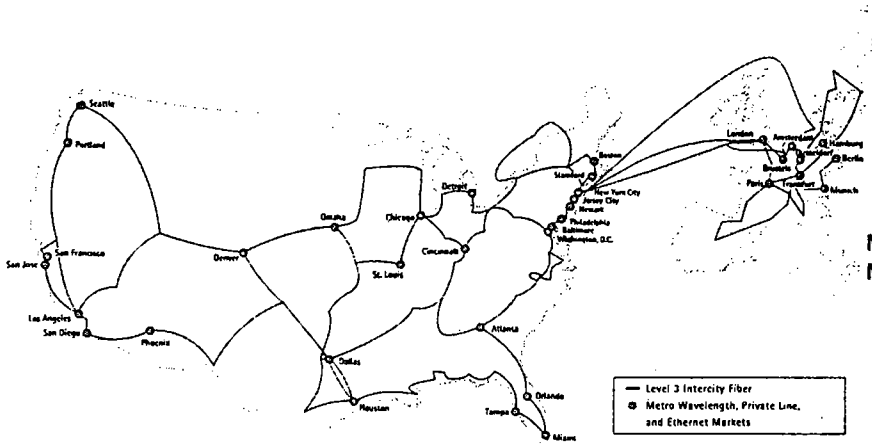
- Flexibility. With a broad metro footprint and comprehensive metro transport services portfolio (dark fiber, wavelength, private line, and Ethernet services), Level 3 gives customers the flexibility to choose the best solution for their needs today. And Level 3 allows customers to easily migrate between transport services as needs change. Level 3 is interconnected with key high-bandwidth sites, including more than 100 LEC COs; major peering and traffic exchange sites; key cable MSO, wireless, and ISP locations; and cable landing and teleport sites.

  Customers also have the flexibility to extend their metro networks into long-haul designs (or vice-versa) using a single provider with Level 3's capability to seamlessly interconnect (3)Link Metro Private Line service with its suite of long-haul IP and transport services.

- Availability. Customers can count on Level 3 providing a highly available service with 12-month actual availability averages of 99.999% for protected services and 99.95% for unprotected services. Level 3's underlying network has physically diverse routes with no collapsed rings, as well as physically diverse laterals, entrance facilities, and risers.

  Level 3 is fully committed to fiber protection and security. The company has an in-house cable protection bureau that proactively prevents risky digs. Last year, the team processed more than 1.2 million cable locate requests and dispatched field technicians more than 115,000 times. Level 3 also has implemented tight security with biometrics and photo ID access card systems in its locations.

- Cost Savings. (3)Link Metro Private Line service is designed to save money. The service eliminates investments necessary to deploy and maintain a network protection scheme. It reduces operations costs for managing the physical network. And it saves money for training because private lines are well-known and widely deployed.



Markets with Level 3 Metropolitan Area Networks

Level(3)®
COMMUNICATIONS

Why Level 3 for Your Metro Network?

THE WORLD'S MOST SOPHISTICATED NETWORK USERS RELY ON LEVEL 3 FOR METRO SERVICES

Designing, building, and growing a reliable and flexible metro network takes a partner, not just a vendor. Our customers are tasked with scaling and growing their metro networks in a business environment that demands rapid response to growth – which often means quickly bringing new sites on-net and adding distribution sites within a given building. They're faced with bulletproofing their networks to minimize risks and points of failure, and providing a diverse, flexible and cost-effective alternative to the ILEC. And they need it all from a carrier with the experience and expertise to manage everything from the initial planning and design, to permitting and construction, to installation and on-going management.

To address these needs, Level 3 has proven metro service capabilities that stand head and shoulders above the competition.

> "Our research suggests that Level 3 has begun to establish market share in the metropolitan area services. Level 3 is well-positioned to become a market leader in metro services, just as it has become a top-tier competitor in the long-haul service."
>
> – The Yankee Group

WHAT SETS LEVEL 3 APART?

Turnkey Metro Solution

Level 3 provides comprehensive turnkey solutions that include planning and design, construction and project management, and ongoing maintenance upgrades and growth.

Planning and Design: Level 3 has the network design support that enables us to plan for full Physical Carrier diversity, provide network capacity planning, design interconnections, and plan for colocation, space, power, and equipment. Our OSP planning capabilities include providing lateral construction and fiber provider alternatives and selecting an optimal design through our customer review process.

Construction and Project Management: Our construction planning covers site surveys conducted by Level 3 field personnel in over 35 markets. We manage engineering, permitting and contractors in local markets. As we're implementing your network, we provide dedicated project management for dedicated ring solutions, manage OSP/ISP builds, conduct fiber diversity testing and oversee equipment installation, testing and turn-up – all while maintaining ongoing communications with your company.

Ongoing Maintenance Upgrades and Growth: Level 3 service management includes end-to-end network management, industry leading Mean-Time-To-Repair (MTTR) and SLAs, proactive protection from our in-house cable protection bureau, and redundant NOCs. Our customer service team provides pro-active notification and a single point-of-contact for any service events, as well as dedicated account management and engineering. To support you during augments and changes, we provide rapid installation of incremental capacity and optical access to all major carrier-neutral locations.

Collaborative Network Design

Our dedicated team of network architects is available to collaboratively plan and design your unique network solution. The Customer Network Planning team brings its expertise and experience to bear on technical network design, outside fiber plant design and bandwidth engineering, planning, and forecasting. The team designed over 70 large customer networks in 2004, including many multi-node, dedicated-ring designs. Because this team is the same organization responsible for designing the Level 3 Network, it has unique insight into how our network can address your specific challenges.

As an example of one of these custom-built metro solutions, Level 3's Customer Network Planning team worked with a large wireless operator to design a network that would support the launch of a next-gen data service that was needed to meet aggressive growth forecasts. To address the customer's need for nearly on-demand scalability to support existing traffic volumes and forecasted traffic growth for the new data service, Level 3 partnered with the customer's engineering team to design dedicated metro OC-192 rings in eight metropolitan markets. The project scope included building or purchasing diverse fiber into strategic customer locations. Level 3 managed installation of dedicated metro rings, which provide a fully protected service between the customer's critical locations. To meet the need for a high level of physical diversity to minimize the risk of failure, Level 3 collaborated with the customer to plan a fully diverse fiber route and equipment protection with a 99.999 percent service guarantee.

Moreover, the assets and knowledge this team brings to your network project are unmatched in the industry.

> "Level 3 consulted with us for more than six months on a contingency plan we prepared as we were exploring the possibility of designing our own network infrastructure. We were impressed with Level 3's flexibility and responsiveness during this process, and their ability to quickly activate our new broadband backbone once we made the decision to design our own network."
>
> – Stephen J. Naidyhorski, senior network engineer for Cox Communications

Flexibility and Cost Savings Compared to the ILEC

Level 3 customers see an aggregate savings of at least 20 percent when compared to the ILEC. Our customers have achieved significant cost savings:

- A wireless carrier reduced network expenses by 60 percent compared to the ILEC alternative by using a five-node OC-192 ring from Level 3 for its Dallas metro network.
- Level 3 provided a solution that came in 55 percent lower than the ILEC using a four-node OC-192 ring in Denver.

In other cases, our customers are getting greater value for the same cost. For one customer, Level 3 provided diversity from the LEC and interconnected metro rings to the Level 3 long-haul network.

Level 3 also provides more flexible contracts with lease and IRU options, as well as a more accommodating approach to service portability. Service portability allows you to upgrade or change the configuration of an existing service without contractual penalties.

THE WORLD'S MOST SOPHISTICATED NETWORK USERS RELY ON LEVEL 3 FOR METRO SERVICES

Continuous Investments for Scalability

Unique in the industry, Level 3's ongoing metro network investments show its continued commitment to supporting some of the fastest growing services and customer networks. Our ongoing investments in our facilities-based metro networks enable us to support a wide range of bandwidth options from DS-3 to 10 Gbps to dark fiber.

In the last 24 months, our metro installed base of STS-1 equivalents grew 80 percent, with over 100,000 STS-1s assigned and over 1,300 active metro ADMs. We've seen a 205 percent increase since 2001, as we've increased the number of on-net buildings from 241 to 737. Level 3 has over 350 carrier interconnections. We invest to support, on average, over 550 metro customer OSP/ISP projects at any given time. And in fewer than 12 months, we've built over 20 multi-node dedicated metro rings.

Level 3 invested to help one of the top U.S. IXCs reduce network expenses by providing an alternative to buying fiber from the ILEC. We provided multiple metro dark fiber rings, covered eight markets, constructed 22 off-net laterals, and integrated over 20 existing on-net carrier hotels and ILEC COs. We're continuing to network to new on-net and off-net facilities.

With one of the largest IP networks in the world, we support approximately three petabytes of IP traffic daily, and carry more IP traffic every day than AT&T[1]. 70 percent of our IP traffic stays on-net and we achieved IP traffic growth of 109 percent in 2004: well above the overall market traffic growth. To support needs for VoIP, managed modem, and broadband access, we've grown to support 30 billion minutes of Softswitch traffic per month. We support the world's biggest networks, carrying traffic for over 250 million wireless, cable, and Internet subscribers, and over 60 million end-user subscribers of the top cable and ISP companies.

Our dedicated metro rings support unpredictable growth smoothly and rapidly. We offer a wide range of metro ring options, including GigE and 10 GigE Ethernet, DS-3 to OC-192 SONET / SDH Private Line, 2.5 Gbps and 10 Gbps wavelengths, as well as Dark Fiber. You have full control over the available capacity and the bandwidth configuration (the mix of speeds and terminations with the ring). Bandwidth within a dedicated ring is installed much faster than with incremental circuit orders on traditional point-to-point services. The Level 3 Network is designed to work and feel like it's your own.

Our (3)Hub℠ service also works to support your needs for rapid growth. It provides similar service capabilities to dedicated metro rings, but in a point-to-point configuration. Once a high-speed, hubbed metro facility is established, you have immediate access to any combination of lower speed metro or long-haul circuits.

Quality and Diversity

Level 3 fully owns and operates a facilities-based metro network, for direct control of end-to-end network quality.

Service quality is only as good as the underlying network diversity, and Level 3 is unparalleled in its use of geographically diverse facilities at all levels. The Level 3 Network has no collapsed intercity or metro rings, as well as diverse or triverse entrances into each gateway, diverse laterals in over 95 percent of our on-net buildings, and electronic-diversity design options. And our multiple conduit system allows Level 3 to have an empty duct for maintenance and repair.

We've consistently exceeded our goal of 99.99 percent and 99.5 percent availability for protected and unprotected services. Level 3 also has significantly fewer service-affecting events compared to industry average, with 1/7 the industry average for metro dark fiber.[2]

Level 3 customers have instant access to network inventory using ONMAP℠, our Online Network Mapping and Planning Tool. This spatially-accurate GIS system makes Level 3 the only provider of metro services that can offer customers instant access to accurate network inventory. It obsoletes hard-copy maps and allows customers to zoom in to view network elements. Aerial photography shows the network overlaid on street views.

Level 3's comprehensive portfolio of metro services provides you with options for intra-metro connectivity to other carriers as your needs evolve, including access to our long-haul services, managed modem services, high-speed Internet services, and colo-neutral facilities in Level 3 Gateways.

THE NETWORK PARTNER CUSTOMERS RELY ON

Level 3's services have a proven track record with the most sophisticated and demanding customers in the world. The customers that rely on our services include:

- The top 5 wireless carriers in the U.S.
- The world's 10 largest telecom carriers
- Europe's 10 largest telecom carriers
- The 4 largest local phone companies in the U.S.
- The 10 largest North American ISPs
- The 6 largest U.S. cable companies

"When we asked 147 buyers to rate the overall quality, reliability, and reputation of wholesale marketplace vendors, Level 3 ranked #2 overall, joining the league of major established players and distancing itself from next-generation carriers. Buyers of wholesale services hold Level 3 in very high esteem. This advantage translates not only into increased business, but also allows Level 3 to offer increasingly complex solutions because buyers trust they can execute."

–The Yankee Group

Level 3's staying power and promising long-term outlook result from our rock-solid financials and reputation. We raised approximately $880 million in late 2004 and early 2005 – more money than all other next-gen carriers combined during the same timeframe. This demonstrates our continued ability to access private and public capital at a time when competitors face a lack of investor confidence and financial scrutiny. Adding to Level 3's stability, we have a diverse customer base, significantly reduced debt, no questionable accounting practices, and a cash cushion that allows for investment and acquisition.

It all speaks to our solid capability to support your long-term success.

[1] Level 3 internal analysis and recent AT&T earnings and public press releases
[2] FCC Outage Reports from the FCC Office of Engineering and Technology

Metropolitan Networks

Metropolitan Networks

In addition to its extensive intercity network infrastructure, Level 3 operates multi-conduit metropolitan networks in 36 cities in Europe and North America.

The metro networks connect Level 3 data centers to key traffic aggregation points in each market, including central offices, telecom hotels, customer sites, and data centers operated by other carriers. In aggregate, Level 3's metro networks comprise almost one million miles of installed optical fiber and connect 850 on-net buildings.

These metro networks offer important competitive advantages to both Level 3 and its customers. By extending the reach of the Level 3 Network deeper into each market and closer to the customer premises, they significantly lower network access costs. They also serve as a platform for Level 3's comprehensive set of metro services for intra-metro applications as well as long-haul extension applications:

(3)Link® Metro Ethernet – GigE and 10 GigE solutions for seamless Ethernet connectivity

(3)Link Metro Private Line – Protected SONET-based solutions that offer a wide range of bandwidth options from DS-3 up to OC-48

(3)Link Metro Wavelength – 2.5 Gbps and 10 Gbps transport solutions that let customer control their own networks

(3)Link Metro Dark Fiber – Reliable dark fiber services in 43 metro markets across North America and Europe

(3)Center® Colocation – Premium space offering customers the freedom to connect to Level 3 and numerous other providers in 73 facilities across two continents

To view a list of buildings, please click on the specific market link below.

North America

Atlanta	Houston	Omaha	San Francisco
Baltimore	Jersey City	Orange County	San Jose
Boston	Kansas City	Orlando	Seattle
Chicago	Los Angeles	Philadelphia	Stamford, CT
Cincinnati	Miami	Phoenix	Tampa
Cleveland	Nashville	Portland, OR	Toronto
Dallas	New York	St Louis	Washington, D.C.
Denver	Newark	Salt Lake City	
Detroit	Oakland	San Diego	

Europe

Amsterdam	Düsseldorf	Hamburg	Munich
Berlin	Frankfurt	London	Paris
Brussels			

TOP